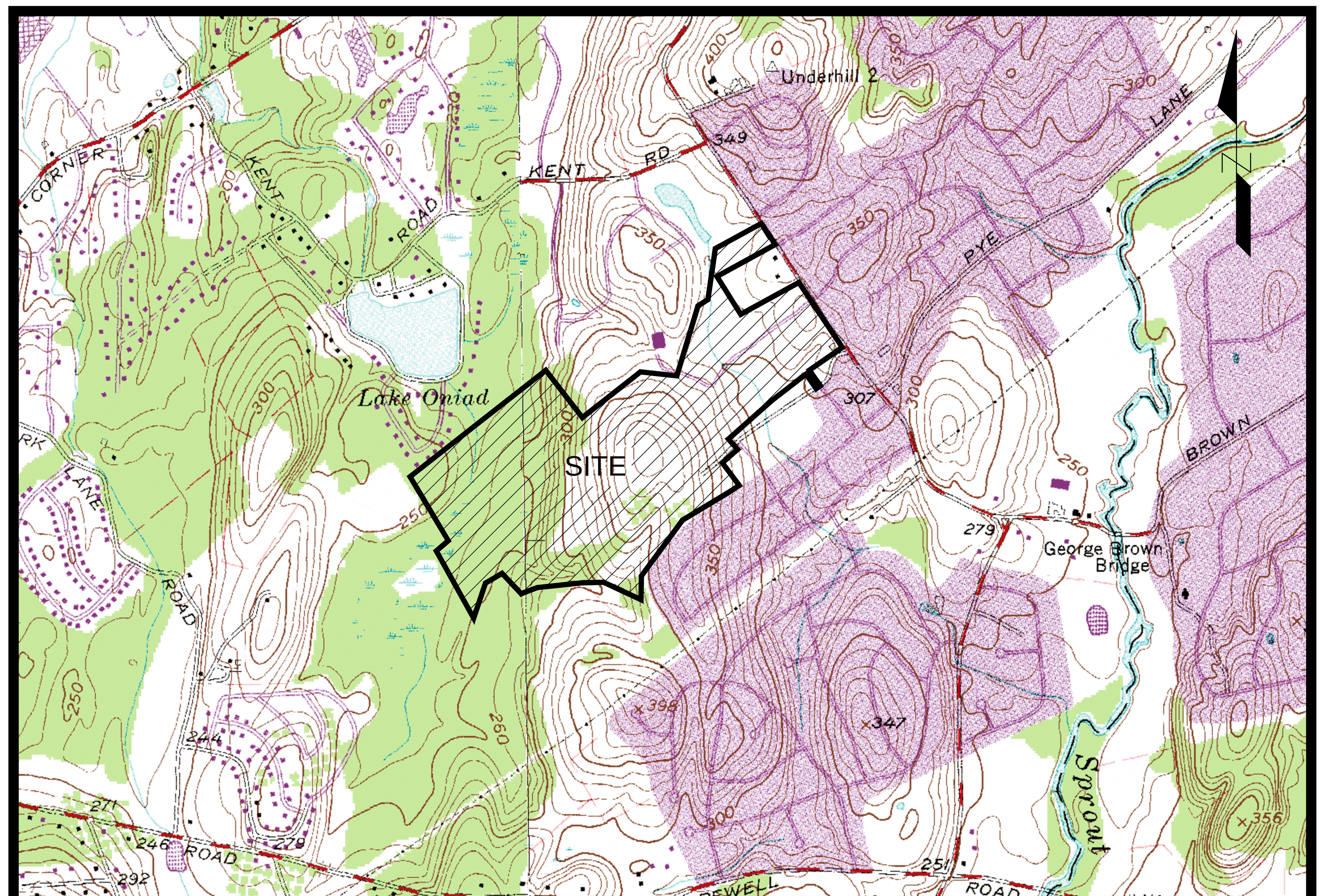
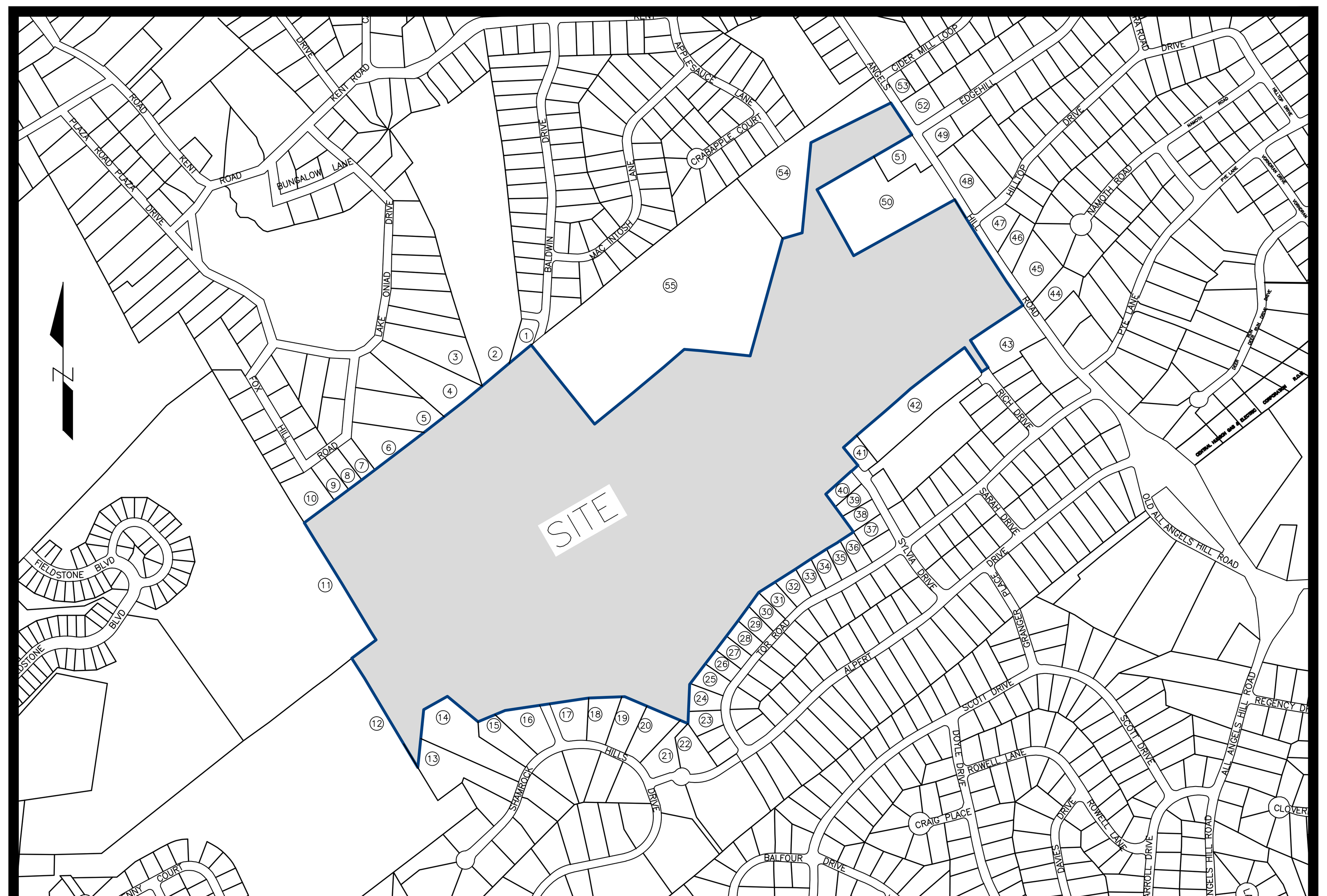
HILLTOP VILLAGE AT WAPPINGER

TOWN OF WAPPINGER ● DUTCHESS COUNTY ● NEW YORK

PRELIMINARY SITE PLAN



SITE LOCATION MAP
SCALE: 1"=1000'



SITE AREA MAP
SCALE: 1"=600'

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ADJACENT PROPERTY OWNERS

1. 6257-02-555887
MANUEL ALVES
38 BALDWIN DRIVE
WAPPINGERS FALLS, NY 12590

2. 6257-02-513975
BVA CONSTRUCTION CORP
17 POND VIEW ROAD
HOPEWELL JUNCTION, NY 12533

3. 6257-01-499880
MICHAEL HEYER
KATHLEEN SOKCHACK-HEYER
36 LAKE ONIAD DRIVE
WAPPINGERS FALLS, NY 12590

4. 6257-01-495861
LINDA BLOHM
34 LAKE ONIAD DRIVE
WAPPINGERS FALLS, NY 12590

5. 6257-01-467821
NORMAN F. WOHLMUTH
CAROL J. WOHLMUTH
28 FOX HILL ROAD
WAPPINGERS FALLS, NY 12590

6. 6257-01-467821
ROBERT A. WYDRO, III
ANNETTE M. WYDRO
26 FOX HILL ROAD
WAPPINGERS FALLS, NY 12590

7. 6257-01-453810
BERNARD D. LOEB
JILL ANN LOEB
24 FOX HILL ROAD
WAPPINGERS FALLS, NY 12590

8. 6257-01-445805
EDWARD DOMBROWSKI
BARBARA DOMBROWSKI
DORTHEA DOMBROWSKI
22 FOX HILL ROAD
WAPPINGERS FALLS, NY 12590

9. 6257-01-437798
LINDA ROBLES
25 ARDMORE ROAD
WAPPINGERS FALLS, NY 12590

10. 6257-01-424789
THOMAS L. SCHIESEL
DOROTHY B. SCHIESEL
18 FOX HILL ROAD
WAPPINGERS FALLS, NY 12590

11. 6257-10-392750
TOWN OF WAPPINGER
20 MIDDLEBUSH ROAD
WAPPINGERS FALLS, NY 12590

12. 6257-01-405571
TOWN OF WAPPINGER
20 MIDDLEBUSH ROAD
WAPPINGERS FALLS, NY 12590

13. 6257-02-509628
KETAN SHAH
JAYSHREE SHAH
174 SHAMROCK HILLS DRIVE
WAPPINGERS FALLS, NY 12590

14. 6257-02-514653
TARLOK SINGH
168 SHAMROCK HILLS DRIVE
WAPPINGERS FALLS, NY 12590

15. 6257-02-543547
DEBRA AMATUCCIO
164 SHAMROCK HILLS DRIVE
WAPPINGERS FALLS, NY 12590

16. 6257-02-561653
TED GORDON
GABRIELA GORDON
160 SHAMROCK HILLS DRIVE
WAPPINGERS FALLS, NY 12590

17. 6257-02-586657
MAURICE CHAVARRIA
150 SHAMROCK HILLS DRIVE
WAPPINGERS FALLS, NY 12590

18. 6257-02-603658
JOSEPH PROVENZANO
144 SHAMROCK HILLS DRIVE
WAPPINGERS FALLS, NY 12590

19. 6257-02-618656
RICHARD M. HAWKINS
DAMARIS M. HAWKINS
140 SHAMROCK DRIVE
WAPPINGERS FALLS, NY 12590

20. 6257-02-631650
LIUPING WANG
HONGJIANG SUN
138 SHAMROCK HILLS DRIVE
WAPPINGERS FALLS, NY 12590

21. 6257-02-640635
ELIAS JOSEPH
SHEELA JOSEPH
132 SHAMROCK HILLS DRIVE
WAPPINGERS FALLS, NY 12590

22. 6257-02-658636
KEVIN K. DAVISON
DEBBIE A. DAVISON
9 DOOLIN COURT
WAPPINGERS FALLS, NY 12590

23. 6527-02-660657
RICHARD CAMPBELL
IRENE CAMPBELL
54 TOR ROAD
WAPPINGERS FALLS, NY 12590

24. 6527-02-659669
ALFRED PASSANO, JR.
JILL ANN PASSANO
52 TOR ROAD
WAPPINGERS FALLS, NY 12590

25. 6527-02-664680
KAREN L. HAWLEY
50 TOR ROAD
WAPPINGERS FALLS, NY 12590

26. 6527-02-671689
ARTURO NIGRELLI
GISELLE NIGRELLI
48 TOR ROAD
WAPPINGERS FALLS, NY 12590

27. 6527-02-677697
MARJORIE GARCIA
46 TOR ROAD
WAPPINGERS FALLS, NY 12590

28. 6257-02-684706
WILLIAM MICHAEL HAYES
LOU ANN HAYES
44 TOR ROAD
WAPPINGERS FALLS, NY 12590

29. 6257-02-691715
ALAN HALL
KATHLEEN HALL
42 TOR ROAD
WAPPINGERS FALLS, NY 12590

30. 6257-02-698721
VITA F. TAPLEY
JAMES B. TAPLEY
40 TOR ROAD
WAPPINGERS FALLS, NY 12590

31. 6257-02-705729
CHRISTOPHER DE RISE
CONNIE DE RISE
38 TOR ROAD
WAPPINGERS FALLS, NY 12590

32. 6257-02-715735
SUSAN J. MAGEE
ROBERT T. PINCHBECK
36 TOR ROAD
WAPPINGERS FALLS, NY 12590

33. 6257-02-725740
KATHLEEN M. HORTON
34 TOR ROAD
WAPPINGERS FALLS, NY 12590

34. 6257-02-734745
JAMES BROCKWAY
DEBRA BROCKWAY
32 TOR ROAD
WAPPINGERS FALLS, NY 12590

35. 6257-02-743749
SHEILA T. FIELDS
30 TOR ROAD
WAPPINGERS FALLS, NY 12590

36. 6257-02-752754
WILLIAM G. WARD
KATHRYN A. WARD
28 TOR ROAD
WAPPINGERS FALLS, NY 12590

37. 6257-02-761768
KEVIN CLARK
TRACI OWENS
7 SYLVIA DRIVE
WAPPINGERS FALLS, NY 12590

38. 6257-02-756777
RONALD A. WESNER
ARTHUR A. WESNER
9 SYLVIA DRIVE
WAPPINGERS FALLS, NY 12590

39. 6257-02-751786
NARDESH SHIWDIN
YOSHADA DHANRAJ
11 SYLVIA DRIVE
WAPPINGERS FALLS, NY 12590

40. 6257-02-746793
NATALE BOSAZ
13 SYLVIA DRIVE
WAPPINGERS FALLS, NY 12590

41. 6257-02-755812
MISSIONARY SISTERS OF THE SACRED HEART
222 E 19TH STREET
NEW YORK, NY 10003

42. 6257-02-790840
TIMOTHY ZAMMIELLO
SHARON ZAMMIELLO
9 RICH DRIVE
WAPPINGERS FALLS, NY 12590

43. 6257-02-847881
MATTHEW RENCRICCA
PO BOX 1527
WAPPINGERS FALLS, NY 12590

44. 6257-02-875911
JOHN BELLEZZA
241 ALL ANGELS HILL ROAD
WAPPINGERS FALLS, NY 12590

45. 6257-02-86934
SUZANNE DEBAUN
214 DINGLE RIDGE DRIVE
BREWSTER, NY 10509

46. 6257-02-851938
ANN FARQUHAR
237 ALL ANGLES HILL ROAD
WAPPINGERS FALLS, NY 12590

47. 6257-02-842948
SEAN INESON
12 TOR ROAD
WAPPINGERS FALLS, NY 12590

48. 6257-02-820976
BHARATI C. DESAI
21 KINGWOOD LAND
POUGHKEEPSIE, NY 12601

49. 6257-04-805005
CAROL B. SASSE
HELEN M. POTTER
2 EDGEHILL DRIVE
WAPPINGERS FALLS, NY 12590

50. 6257-02-770965
COMMUNITY BAPTIST CHURCH
226 ALL ANGELS HILL ROAD
WAPPINGERS FALLS, NY 12590

51. 6257-02-786989
MICIA K. TRAINOR
JAMES P. TRAINOR
224 ALL ANGELS HILL ROAD
WAPPINGERS FALLS, NY 12590

52. 6257-04-793022
EDWARD WHITE, JR.
SANDRA WHITE
1 EDGEHILL DRIVE
WAPPINGERS FALLS, NY 12590

53. 6257-04-780033
PATRICK A. FALCIANO
BARBARA A. FALCIANO

54. 6257-02-720997
ROBERT BUYAKOWSKI
ALISON BUYAKOWSKI
20 APPLESAUCE LANE
WAPPINGERS FALLS, NY 12590

55. 6257-02-641904
R&R REALTY ASSOCIATES
230 ALL ANGELS HILL ROAD
WAPPINGERS FALLS, NY 12590

ALTERATION OF THIS PLAN BY ANY PERSON OTHER THAN A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209-2 OF THE NEW YORK STATE EDUCATION LAWS. ANY ALTERATIONS OF THIS PLAN BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER SHALL BE SO NOTED AND DATED AND BE ACCOMPANIED BY THE SEAL AND SIGNATURE OF SUCH PROFESSIONAL ENGINEER.

SITE DATA

CURRENT ZONING: COP CONSERVATION OFFICE PARK & R-40 RESIDENTIAL

PROPOSED ZONING: RMF-3

TOTAL SITE AREA (PER SURVEY):	± 149.3 Ac.
LAND TO BE DEDICATED TO PARCEL C:	± 4.0 Ac.
DELINEATED WETLANDS*:	± 39.4 Ac.
STEEP SLOPES**:	± 0.6 Ac.
NET LOT AREA:	± 105.3 Ac.
SINGLE FAMILY HOMES:	132
TOWN HOMES:	93
TOTAL HOMES:	225
OPEN SPACE REQUIRED***:	± 72.7 Ac. (50%)
OPEN SPACE PROVIDED***:	± 73.7 Ac. (51%)
DENSITY OF NET LOT AREA:	2.14 DU/Ac.

* – DOES NOT INCLUDE THE 100' NYSDEC ADJACENT AREA & TOWN WETLAND BUFFER.
** – STEEP SLOPES ARE GREATER THAT 25% FOR A DISTANCE GREATER THAN 50'
*** – OPEN SPACE IS CALCULATED USING THE TOTAL SITE AREA

PROPOSED INTERNAL HOME REQUIREMENTS

SINGLE FAMILY HOME REQUIREMENTS

FRONT YARD FROM HOUSE TO INTERNAL ROAD = 30 FT. MIN.
SIDE YARD SEPARATION HOUSE TO HOUSE = 15 FT. MIN.
REAR YARD SEPARATION HOUSE TO HOUSE = 30 FT. MIN.

TOWN HOME REQUIREMENTS

FRONT YARD FROM BUILDING TO INTERNAL ROAD = 25 FT. MIN.
SIDE YARD SEPARATION BUILDING TO BUILDING = 30 FT. MIN.
REAR YARD SEPARATION BUILDING TO BUILDING = 30 FT. MIN.

SCHEDULE OF BULK REGULATION

DISTRICT	REQUIRED (RMF-3)	PROVIDED
MINIMUM LOT AREA (WITH PUBLIC WATER & SEWER)	5 Ac.	145.3 Ac.
MINIMUM LOT WIDTH	100 ft.	782 ft.
MINIMUM LOT DEPTH	150 ft.	4,485 ft.
MINIMUM LOT FRONTAGE	50 ft.	516 ft.
MAXIMUM DENSITY UNITS PER ACRE	3 DU/Ac.	1.6 DU/Ac.
MINIMUM FRONT YARD:		
COUNTY/STATE HIGHWAY	75 ft.	80 ft.
CENTER LINE OF OTHER STREET	75 ft.	80 ft.
FRONT LOT LINE OF OTHER STREET	50 ft.	55 ft.
MINIMUM SIDE YARD	50 ft.	51 ft.
MINIMUM REAR YARD	50 ft.	759 ft.
MAXIMUM BUILDING HEIGHT	3 stories/35 ft.	2 stories/35 ft. max.
MAXIMUM LOT COVERAGE	30%	18%
MAXIMUM FLOOR AREA RATIO	0.3	0.16

FEDERAL JURISDICTIONAL WETLAND SCHEDULE

WETLAND ID	AREA
B/C/D/E	1,286,394 sq.ft. (29.53 ac)
F/G	217,682 sq.ft. (5.00 ac)
H/J	214,005 sq.ft. (4.91 ac)
N	2,574 sq.ft. (0.06 ac)

FEDERAL JURISDICTIONAL WETLAND BOUNDARY VALIDATION

THE FEDERAL WETLAND BOUNDARY, AS REPRESENTED ON THESE PLANS, ACCURATELY DEPICTS THE LIMITS FEDERAL WETLANDS, AS DELINEATED BY ECOLOGICAL SOLUTIONS, LLC IN JULY, 2002.

NYSDEC FRESHWATER WETLAND BOUNDARY VALIDATION

THE FRESHWATER WETLAND BOUNDARY AS REPRESENTED ON THESE PLANS ACCURATELY DEPICTS THE LIMITS OF FRESHWATER WETLAND WF-6
AS CONFIRMED BY ROY JACOBSON ON 9/13/02
DEC STAFF: MICHAEL CLANCY SURVEYOR/ENGINEER: RAYMOND E. HEINSMAN
DATE OF VALIDATION: MARCH 29, 2005

WETLAND BOUNDARY DELINEATIONS AS VALIDATED BY NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION REMAINS VALID FOR 10 YEARS UNLESS EXISTING EXEMPT ACTIVITIES, AREA HYDROLOGY, OR LAND USE PRACTICES CHANGE (E.G., AGRICULTURAL TO RESIDENTIAL). **AFTER 10 YEARS THE BOUNDARY MUST BE REVALIDATED BY DEC STAFF.** REVALIDATION MAY INCLUDE A NEW DELINEATION AND SURVEY OF THE WETLAND BOUNDARY.

ANY PROPOSED CONSTRUCTION, GRADING, FILLING, EXCAVATING, CLEARING OR OTHER REGULATED ACTIVITY IN THE FRESHWATER WETLAND OR WITHIN 100 FEET OF THE WETLAND BOUNDARY AS DEPICTED ON THIS PLAN REQUIRES A PERMIT FROM THE NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION UNDER ARTICLE 24 OF THE ENVIRONMENTAL CONSERVATION LAW (FRESHWATER WETLANDS ACT) PRIOR TO COMMENCEMENT OF WORK.

UFPO
BEFORE YOU DIG, DRILL OR BLAST!

CALL US TOLL FREE
1-800-962-7962
N.Y. INDUSTRIAL CODE RULE 753 REQUIRES NOT LESS THAN TWO WORKING DAYS NOTICE, BUT NO MORE THAN TEN DAYS NOTICE.

PROPERTY OWNER:

CONTRAIL, LLC
25 CORPORATE PARK DRIVE
HOPEWELL JUNCTION, NY 12533

APPLICANT:

TOLL BROTHERS, INC.
60 MERRITT BLVD., SUITE 100
FISHKILL, NY 12590

EXISTING ZONING DESIGNATION:

R-40, 1-FAMILY RESIDENCE DISTRICT
COP, CONSERVATION OFFICE PARK DISTRICT

PROPERTY INFORMATION:

TAX MAP NO.: 13-5689-6257-02-630770
PROPERTY ACREAGE: 149.35± Ac.
PARCEL B, FILED MAP No. 11070A

WATER SUPPLY:

UNITED WAPPINGER WATER DISTRICT (UWWD)

SEWER SYSTEM:

ROCKINGHAM FARMS SEWER DISTRICT
WAPPINGER SEWER IMPROVEMENT #1
WAPPINGER SEWER TRANSMISSION/TREATMENT IMPROVEMENT

PROPOSED ZONING DESIGNATION:

RMF-3, MULTIFAMILY RESIDENCE DISTRICT

PLANNING BOARD APPROVAL

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF WAPPINGER, NEW YORK, ON THE ____ DAY OF ____________, 20____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.
SIGNED THIS________DAY OF______________, 20_____, BY

____
CHAIRMAN

____
SECRETARY

RECOMMENDED FOR APPROVAL

____

DUTCHESS COUNTY DEPARTMENT OF HEALTH

POUGHKEEPSIE, NEW YORK

THIS IS TO CERTIFY THAT THE PROPOSED ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL

FOR______________________

IN THE______________________

WERE APPROVED ON______________________

IN ACCORDANCE WITH PLANS ON FILE IN THE OFFICE OF THE DUTCHESS COUNTY DEPARTMENT OF HEALTH. CONSENT IS HEREBY GIVEN TO THE FILING OF THE MAP ON WHICH THIS ENDORSEMENT APPEARS IN THE OFFICE OF THE COUNTY CLERK OF DUTCHESS COUNTY IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 11 TITLE 2 OF THE NEW YORK STATE PUBLIC HEALTH LAW AND ARTICLE 17 TITLE 15 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW, AND ARTICLE 11 OF THE DUTCHESS COUNTY SANITARY CODE.

____
SUPERVISING PUBLIC HEALTH ENGINEER

REVISIONS

DATE:	DESCRIPTION:

SURVEYOR'S CERTIFICATION:

I hereby certify to the parties of interest listed below that this map shows the results of an actual field survey completed on July 27, 2011 for Contrail, LLC.

BY:______________________
ROBERT V. OSWALD, LLS

ROBERT V. OSWALD JR. LAND SURVEYING, PLLC
175 Walsh Rd., LaGrangeville, NY 12540
PHONE: (845) 226-6436 FAX: (845) 226-1315

Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, subdivision 2, of the New York State Education Law.

Only copies from the original of this survey marked with an original of the land surveyor's embossed seal shall be considered to be valid true copies.

Certifications indicated hereon signify that this survey was prepared in accordance with the existing code of practice for land surveys adopted by the New York State Association of Professional Land Surveyors. Said certifications shall run only to the person for whom the survey is prepared, and on his/her behalf to the title company, governmental agency and lending institution. Certifications are not transferable to additional institutions or subsequent owners.

This survey is subject to any findings of a title search.

Subsurface structures and utilities which were not visible at the time of survey have not been shown.

NEW YORK STATE

LICENSE No. 050031

OWNER'S CONSENT NOTE:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS, AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

______________________ ______________
OWNER'S SIGNATURE DATE

POVALL ENGINEERING, PLLC

WILLIAM H. POVALL III, P.E.
N.Y.S.P.E. LICENSE #075020

25 CORPORATE PARK DR., SUITE C
HOPEWELL JUNCTION, NY 12533

TEL.: (845) 897-8205
FAX: (845) 897-0042

HILLTOP VILLAGE AT WAPPINGER

COVER SHEET

TOWN OF WAPPINGER ***DUTCHESS COUNTY, NEW YORK***

JOB #: 0552
DATE: 09/30/11
SCALE: AS SHOWN

GENERAL NOTES:

1. ALTERATION OF THIS PLAN BY ANY PERSON OTHER THAN A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209-2 OF THE NEW YORK STATE EDUCATION LAWS. ANY ALTERATIONS OF THIS PLAN BY A NYS LICENSED PROFESSIONAL ENGINEER SHALL BE SO NOTED AND DATED AND BE ACCOMPANIED BY THE SEAL AND SIGNATURE OF SUCH PROFESSIONAL ENGINEER.
2. TOPOGRAPHY SHOWN HEREON IS BASED ON APPROXIMATE USGS DATUM.
3. ALL EXISTING UTILITY LINES SHALL BE LOCATED/VERIFIED IN THE FIELD BY THE FIELD CONTRACTOR PRIOR TO THE ORDERING OF ANY MATERIALS AND/OR ANY CONSTRUCTION.
4. NO FENCING AND/OR OBSTRUCTIONS SHALL BE INSTALLED AND/OR PLACED IN ANY DRAINAGE SWALES AND/OR EASEMENTS.
5. GF REPRESENTS GARAGE FLOOR ELEVATION, BF REPRESENTS BASEMENT FLOOR ELEVATION, AND FF REPRESENTS FIRST FLOOR ELEVATION AS SHOWN ON THIS PLAN SET.
6. ALL PROPOSED RETAINING WALLS IN EXCESS OF 4' HIGH WILL REQUIRE THAT PLANS BE SUBMITTED BY A LICENSED PROFESSIONAL ENGINEER PRIOR TO THE ISSUANCE OF A BUILDING PERMIT AND THAT A CONSTRUCTION COMPLIANCE LETTER PREPARED BY A LICENSED PROFESSIONAL ENGINEER BE SUBMITTED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
7. ALL PROPOSED BUILDINGS ARE REQUIRED TO BE CONSTRUCTED AT AN ELEVATION HIGH ENOUGH TO ENSURE GRAVITY FLOW TO THE SEWAGE COLLECTION SYSTEM.
8. NO BUILDING PERMITS MAY BE ISSUED FOR ANY UNIT WITHIN THIS DEVELOPMENT UNTIL THE ROUGH GRADING, DRAINAGE IMPROVEMENTS, WATER, SEWER, UNDERGROUND UTILITIES, OFFSITE WATER AND SEWER IMPROVEMENTS AND WEARING COURSE FOR THE ROADS HAVE BEEN COMPLETED TO THE SATISFACTION OF THE TOWN ENGINEER OR UNTIL A PHASING CONSTRUCTION PLAN IS APPROVED BY THE PLANNING BOARD.
9. THE DEVELOPER SHALL PLACE APPROPRIATE STREET SIGNS AND TRAFFIC CONTROL SIGNS AT THE INTERSECTION WITH EXISTING ROADS AS DIRECTED BY AN AGENT OF THE TOWN.
10. THE APPLICANT, ITS SUCCESSORS AND ASSIGNS SHALL PROVIDE THE NAME, ADDRESS AND TELEPHONE NUMBER OF AN AGENT, REPRESENTATIVE OR PRIVATE CONTRACTOR WHO SHALL BE RESPONSIBLE FOR THE ROAD MAINTENANCE AND WHO SHALL BE AUTHORIZED TO RECEIVE NOTICE OF ANY REQUIRED MAINTENANCE WORK BY THE HIGHWAY SUPERINTENDENT AND THAT THE ROAD AND IMPROVEMENTS SHALL BE MAINTAINED IN ACCORDANCE WITH THE TOWN OF WAPPINGER HIGHWAY SPECIFICATIONS IN EFFECT AS OF THE DATE OF THIS RESOLUTION.

WETLAND NOTES:

1. FEDERAL JURISDICTIONAL WETLANDS SHOWN HEREON ARE THE RESULT OF A WETLAND DELINEATION CONDUCTED BY TIM MILLER IN ACCORDANCE WITH THE ROUTINE ONSITE DETERMINATION METHOD PRESCRIBED IN THE 1987 USACOE WETLANDS DELINEATION MANUAL.
2. LIMITS OF WF-6 NYSDEC REGULATED WETLANDS WERE VALIDATED BY NYSDEC REPRESENTATIVE ROY JACOBSON ON SEPTEMBER 13, 2002 AND FIELD SURVEYED BY RAY HEINSMAN, NYSLLS. WETLAND VALIDATION REMAINS VALID FOR 10 YEARS.
3. ACOE FEDERAL JURISDICTIONAL WETLANDS WERE FLAGGED BY MICHAEL NOWICKI OF ECOLOGICAL SOLUTIONS, LLC, IN JULY 2002 AND FIELD SURVEYED BY RAY HEINSMAN, NYSLLS.
4. PRIOR TO ANY DISTURBANCE/CONSTRUCTION, A 4 FT. HIGH ORANGE CONSTRUCTION FENCE IS TO BE INSTALLED ALONG ANY N.Y.S.D.E.C. WETLAND BUFFERS AND A.C.O.E. WETLANDS BOUNDARY LIMITS.
5. DISTURBANCE TO ANY FEDERAL WETLANDS MAY ALSO REQUIRE A PERMIT FROM THE ARMY CORPS OF ENGINEERS (ACOE).
6. NO LAWN DEBRIS SUCH AS LEAVES, GRASS CLIPPINGS, EXCESS ROCKS, STONES, ETC. SHALL BE DUMPED INTO TOWN, STATE AND/OR FEDERAL WETLANDS AND TOWN EASEMENT AREAS. VIOLATORS SHALL BE FINED IN ACCORDANCE WITH TOWN OF WAPPINGER LAW. ALL EXPENSES WITH CLEANING SAID AREAS BY THE TOWN SHALL BE BORNE DIRECTLY BY THE FINED LOT OWNER.
7. NO FERTILIZERS OR PESTICIDES SHALL BE APPLIED WITHIN THE 100-FOOT WIDE REGULATED WETLAND BUFFER AREA.
8. THIS FINAL SUBDIVISION PLAT APPROVAL IS INCLUSIVE OF A WETLANDS PERMIT PURSUANT TO SECTION 240-32 OF THE ZONING LAW FOR ALL ACTIVITIES AND IMPROVEMENTS AS SHOWN ON THE FINAL PLAT AND THE ASSOCIATED CONSTRUCTION PLANS. SUBSTANTIVE DEVIATIONS FROM SAID APPROVED PLANS AS DETERMINED BY THE TOWN OF WAPPINGER BUILDING INSPECTOR OR THE TOWN ENGINEER, SHALL REQUIRE APPROVAL FROM THE TOWN OF WAPPINGER PLANNING BOARD PURSUANT TO SECTION 240-32.

NYSDEC SPECIAL NOTES:

1. ANY PROPOSED CONSTRUCTION, GRADING, FILLING, EXCAVATING, CLEARING OR OTHER REGULATED ACTIVITY WITHIN THE FRESHWATER WETLAND OR ADJACENT 100 FT. REQUIRES A PERMIT FROM THE N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION UNDER ARTICLE 24 OF THE ENVIRONMENTAL CONSERVATION LAW (FRESHWATER WETLANDS ACT) PRIOR TO COMMENCEMENT OF WORK.

FLOODPLAIN NOTE:

THE LIMITS OF THE ZONE X (OTHER FLOOD AREAS) AND ZONE X (OTHER AREAS) SHOWN HEREON ARE APPROXIMATE AND TAKEN FROM THE FLOOD INSURANCE RATE MAP (FIRM), TOWN OF WAPPINGER, NEW YORK, PANEL 4 OF 7, COMMUNITY PANEL NUMBER 361387 0004 B, MAP REVISED DATE SEPTEMBER 22, 1999. ZONE X (OTHER FLOOD AREAS) IS IDENTIFIED AS "AREAS OF 500-YEAR FLOOD; AREAS OF 100-YEAR FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREA LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 100-YEAR FLOOD". ZONE X (OTHER AREAS) IS IDENTIFIED AS "AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN".

UTILITY NOTES:

1. THE LOCATIONS OF EXISTING UTILITIES AS SHOWN WITHIN THIS PLAN SET HAVE BEEN PROVIDED BY ROBERT V. OSWALD, LS. AND ARE TO BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL VERIFY THEIR LOCATIONS AND ELEVATIONS PRIOR TO THE START OF THE CONSTRUCTION. ALL EXISTING UTILITY LINES SHALL BE LOCATED/VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE ORDERING OF ANY MATERIALS AND/OR THE START OF ANY CONSTRUCTION.
2. THE NEW YORK STATE INDUSTRIAL CODE REQUIRES NOTIFICATION TWO (2) WORKING DAYS NOTICE PRIOR TO ANY WORK/CONSTRUCTION INCLUDING BUT NOT LIMITED TO EXCAVATION, DRILLING, OR BLASTING. FOR LOCATION, CONTACT THE UNDERGROUND UTILITIES CALL CENTER AT TELEPHONE NO. 1-800-962-7962.
3. EACH HOME SHALL BE PROVIDED WITH WATER AND SEWER SERVICES FROM THE TOWN OF WAPPINGER. ALL COMPLETED WATER AND SEWER SERVICES SHALL BE PROPERLY INSTALLED AND CONNECTED TO THE NEW WATER AND SEWER MAINS, RESPECTIVELY. ALL INSTALLATIONS SHALL BE INSPECTED BY BUILDING INSPECTOR AND/OR TOWN ENGINEER PRIOR TO BACKFILLING.
4. FOOTING DRAINS SHALL BE INSTALLED AROUND THE NEW RESIDENTIAL UNITS WHERE DETERMINED APPROPRIATE BY THE TOWN OF WAPPINGER BUILDING INSPECTOR. FOOTING DRAINS SHALL BE 4-INCH RIGID PVC PIPE AND SHALL DISCHARGE TO DAY LIGHT/ABOVE GROUND SURFACE.
5. ALL UTILITIES SUCH AS ELECTRIC, TELEPHONE, AND CABLE TV SHALL BE INSTALLED UNDERGROUND.

INDIANA BAT MITIGATION MEASURES:

THE PROPERTY IS CONSIDERED TO POSSESS POTENTIAL FORAGING HABITAT FOR THE INDIANA BAT BECAUSE THERE ARE SUITABLE HABITAT COMPONENTS FOR FORAGING AS DESCRIBED IN THE LITERATURE REVIEW THAT EXIST ON THE SITE (WETLANDS, EDGE HABITAT, CANOPY). THE DEVELOPER WILL AVOID, MINIMIZE, AND MITIGATE THESE EFFECTS TO THE EXTENT POSSIBLE BY:

1. IMPLEMENTING TREE CLEARING DURING TIMEFRAMES WHEN BATS ARE NOT RESIDENT ON THE SITE OCTOBER 1 – TO MARCH 31;
2. MAINTAINING POTENTIAL FORAGING HABITAT CORRIDOR SINCE THE PROPOSED WILL BE CLUSTERED – HABITATS REMAIN INTACT EXCEPT FOR THE IMPACTED ACRES;
3. PRESERVING THE WETLANDS ON THE SITE TO THE MAXIMUM EXTENT POSSIBLE WHICH CAN POTENTIALLY BE USED BY BATS AS TRAVEL CORRIDORS;
4. IMPLEMENTING SOIL CONSERVATION AND DUST CONTROL BEST MANAGEMENT PRACTICES, SUCH AS WATERING DRY DISTURBED SOIL AREAS TO KEEP DUST DOWN, AND USING STAKED, RECESSED SILT FENCE AND ANTI TRACKING PADS TO PREVENT EROSION AND SEDIMENTATION IN SURFACE WATERS ON THE SITE;
5. PRIOR TO CLEARING, THE LIMITS OF PROPOSED CLEARING WILL BE CLEARLY DEMARCATED ON THE SITE WITH ORANGE CONSTRUCTION FENCING (OR SIMILAR) TO PREVENT INADVERTENT OVER-CLEARING OF THE SITE, AND;
6. STORMWATER POND(S) WILL NOT BE MAINTAINED WITH ANY CHEMICALS THAT MIGHT ADVERSELY AFFECT BATS OR INSECT POPULATIONS ON WHICH THEY MAY FEED.

BLANDING'S TURTLE MITIGATION MEASURES:

THE FOLLOWING MEASURES WILL BE INCORPORATED TO ASSURE THAT ANY POTENTIAL IMPACTS ARE AVOIDED AND MINIMIZED:

1. TEMPORARY BARRIER – A TEMPORARY RESTRICTIVE BARRIER IN THE FORM OF SILT FENCING WILL BE INSTALLED AROUND THE PERIMETER OF THE DISTURBANCE FOOTPRINT. THE BARRIER WILL BE: 1) INSTALLED DURING THE WINTER HIBERNATION PERIOD AND MAINTAINED UNTIL THE END OF THE CONSTRUCTION PHASE OF THE PROJECT OR UNTIL THE BEGINNING OF THE NEXT WINTER HIBERNATION PERIOD, WHICHEVER OCCURS FIRST, 2) INSPECTED DAILY AND, IF NECESSARY, REPAIRED IMMEDIATELY TO A FULLY FUNCTIONAL CONDITION, AND 3) CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING DESIGN SPECIFICATIONS:
   A. MADE OF FINE-MESH (¼ INCH SQUARE) FILTER-FABRIC OR NON-WOVEN GEOTEXTILES;
   B. A MINIMUM OF 42"HIGH;
   C. ANCHORED INTO THE GROUND WITH REINFORCEMENT BARS PLACED ON THE "DISTURBANCE SIDE" OF THE BARRIER AND SPACED BETWEEN 6-8 FEET APART; AND
   D. SECURED AT THE BASE (BARRIER/GROUND INTERFACE) WITH AT LEAST 8" OF FENCE MATERIAL COVERED WITH SOIL BACKFILL.
2. MONITOR – THE PROJECT WILL EMPLOY A MONITOR TO ASSURE THAT ALL THE STATED MEASURES ARE IMPLEMENTED, AND TO MONITOR FOR POTENTIAL IMPACTS. THE MONITOR MUST BE A QUALIFIED BIOLOGIST THAT HAS KNOWLEDGE OF BLANDING'S TURTLE ECOLOGY AND RELOCATION PROCEDURES; THE BIOLOGIST MUST ALSO HAVE EXPERIENCE HANDLING BLANDING'S TURTLES AND BE LICENSED BY NEW YORK STATE TO DO SO.

   THE MONITOR'S RESPONSIBILITIES SHOULD INCLUDE:
   A. CONDUCTING RECONNAISSANCE SURVEYS FOR BLANDING'S TURTLES WITHIN THE SPECIFIED WORK AREA PRIOR TO THE INITIATION OF ANY DISTURBANCE ACTIVITIES, AND RELOCATING ANY TURTLES IF EVER FOUND;
   B. TRAINING ALL PERSONNEL WORKING AT THE SITE TO BE ABLE TO IDENTIFY, LOCATE, AND REMOVE OR RELOCATE BLANDING'S TURTLES, IF NECESSARY;
   C. MONITORING THE PROPER PLACEMENT AND MAINTENANCE OF TEMPORARY RESTRICTIVE BARRIERS, AND
   D. PROVIDING OVERSIGHT DURING THE DISTURBANCE PHASE OF THE PROJECT.
3. TRAP HAZARD PROTECTION – WATER CONTROL STRUCTURES, SUCH AS DRAINPIPES, MAY CREATE A TRAP HAZARD TO BLANDING'S TURTLES. TO PREVENT POSSIBLE ENTRAPMENT OF BLANDING'S TURTLES, THE STORM DRAIN GRATES WILL BE DESIGNED WITH THE SMALLEST POSSIBLE GRATE OPENING WITHOUT COMPROMISING SAFETY OR NECESSARY FLOW RATE.

   BELOW-GROUND SWIMMING POOLS SHOULD BE SURROUNDED BY FENCING TO EXCLUDE TURTLES OF ALL AGE CLASSES. FINE GRADE WIRE CLOTH (1/4 INCH SQUARE MESH SIZE) AT THE BASE OF A PICKET FENCE OR A 10ò– 12òHIGH BARRIER CAN BE USED TO PREVENT TURTLES FROM TRAVELING INTO THE HAZARD AREA.

   WINDOW WELLS SHOULD HAVE GRATES (1 INCH SQUARE MESH SIZE OR LESS) OR 10ò– 12òHIGH VERTICAL BARRIERS SURROUNDING THE WELL.

MITIGATION OF NOISE IMPACTS NOTES:

1. THE HOURS OF OPERATION FOR THE CONSTRUCTION ACTIVITIES WILL BE 7:00 AM TO 5:00 PM MONDAY THROUGH FRIDAY.
2. SOUND MUFFLERS SHALL BE USED ON ALL ENGINE DRIVEN EQUIPMENT.
3. SOUND MUFFLERS SHALL BE FULLY FUNCTIONAL AND WELL MAINTAINED BY THE CONSTRUCTION CONTRACTOR.
4. PERIMETER VEGETATION WILL BE RETAINED TO THE MAXIMUM EXTENT PRACTICABLE. APPROXIMATELY 50% OF THE PROPERTY WILL REMAIN UNDISTURBED.
5. IF BLASTING IS REQUIRED, PRE-BLAST NOTIFICATION WILL BE SENT TO ALL NEIGHBORS.

BLASTING NOTES:

1. IF BLASTING IS FOUND NECESSARY, ALL BLASTING OPERATIONS WILL ADHERE TO NEW YORK STATE ORDINANCES GOVERNING THE USE OF EXPLOSIVES. THE STATE REGULATIONS ARE CONTAINED IN 12 NYCRR 39 AND INCLUDE SUCH REQUIREMENTS AS LICENSING OF OPERATORS, MAGAZINE (EXPLOSIVE STORAGE) CERTIFICATION, AND RULES FOR CONDUCTING OPERATIONS IN A SAFE MANNER. ALL PERTINENT SAFETY REGULATIONS AND STANDARDS SHALL BE APPLIED AS REQUIRED FOR SAFETY, SECURITY AND OTHER RELATED DETAILS FOR ANY BLASTING DEEMED NECESSARY. APPLICABLE SAFETY REGULATIONS ARE:
   A. 29 CFR 1910 OSHA STANDARDS;
   B. U.S. ARMY CORPS OF ENGINEERS SAFETY MANUAL EM 385-1-1;
   C. CODE OF FEDERAL REGULATIONS A.T.F. TITLE 27;
   D. INSTITUTE OF MAKERS OF EXPLOSIVES SAFETY LIBRARY PUBLICATIONS NO. 22; AND
   E. 12 NYCRR 39.
2. PROPER PROGRAM GUIDELINES WILL BE ESTABLISHED BETWEEN THE STATE, THE TOWN, AND THE BLASTING CONTRACTOR PRIOR TO UNDERTAKING THIS ACTIVITY. THE PROJECT WILL OBTAIN ALL APPLICABLE BLASTING CERTIFICATIONS AND COMPLYING WITH ALL BLAST SAFETY REQUIREMENTS. IN ADDITION A BLAST MONITORING PROGRAM WILL BE IMPLEMENTED. THE ELEMENTS OF SUCH A PROGRAM INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
   A. PRECISE ENGINEERING DETERMINATION OF THE DEPTH AND LOCATION OF ONSITE BLASTING.
   B. EVALUATION OF THE LOCATION OF PROPERTY LINES AND THE STRUCTURAL NATURE OF NEARBY BUILDINGS FOR DETERMINATION OF THE MAXIMUM BLAST VELOCITY FOR CHARGES TO BE USED.
   C. USE OF A SEISMOGRAPH TO MONITOR EACH BLAST ATTEMPT AND EVALUATE THE BLAST VELOCITY OF THE CHARGES USED.
   D. USE OF BLAST MATTING TO MINIMIZE LIFTING OF ROCK AND DEBRIS DURING BLASTING.
   E. NOTIFICATION OF SURROUNDING RESIDENTS AND LANDOWNERS.
3. STORAGE OF ALL EXPLOSIVE MATERIALS SHALL BE LOCATED ON THE SITE AT A LOCATION APPROVED BY THE BLASTING ENGINEER. CAPS OR OTHER DETONATING DEVICES WILL NOT BE STORED WITH CLASS A EXPLOSIVES. DESIGN OF THE POWDER MAGAZINE SHALL BE IN ACCORDANCE WITH THE REFERENCES ABOVE. THE SECURITY FOR EXPLOSIVES AND BLASTING MATERIALS STORED ONSITE WILL BE IN ACCORDANCE WITH ENGINEER-APPROVED REQUIREMENTS.
4. DELIVERY AND TRANSPORTATION OF EXPLOSIVES FROM THE POWDER MAGAZINES TO THE BLAST AREA WILL BE BY VEHICLES SPECIFICALLY DESIGNED FOR THIS USE BY THE CRITERIA OUTLINED IN THE SAFETY REQUIREMENTS. ONLY AUTHORIZED PERSONS WILL TRANSPORT AND HANDLE THE EXPLOSIVES AS DESIGNATED BY THE AUTHORITY OF THOSE LICENSED FOR THIS PURPOSE. AT ALL TIMES FEDERAL, STATE, AND LOCAL ORDINANCES WILL BE FOLLOWED CONCERNING THE TRANSPORTATION AND STORAGE OF EXPLOSIVES.
5. THE DESIGNATED STORAGE SITE, EXPLOSIVE TRANSPORTING VEHICLES, AND AREAS WHERE EXPLOSIVES ARE BEING USED SHALL BE CLEARLY MARKED AND SHALL DISPLAY THE REQUIRED WARNING SIGNS. A DAILY TALLY OF ALL EXPLOSIVES DELIVERED, USED AND STORED SHALL BE MAINTAINED.
6. PRIOR TO BLASTING, NECESSARY PRECAUTIONS FOR THE PROTECTION OF PERSONS, ADJOINING PROPERTY, AND COMPLETED WORK SHALL BE ESTABLISHED, INCLUDING:
   A. APPROPRIATE SIGNS SHALL BE ERECTED IN THE AREA OF BLASTING ACTIVITIES.
   B. ALL ADJOINING PROPERTY OWNERS SHALL BE MAILED NOTIFICATION OF THE ANTICIPATED BLASTING SCHEDULE.
   C. NOTIFICATION OF BLASTING AT THE SITE SHALL BE PUBLISHED IN NEWSPAPERS PRIOR TO THE BLASTING SCHEDULE.
   D. A STORM ALERT MONITORING DEVICE SHALL BE USED BY THE BLASTING CONTRACTOR TO DETECT ANY ELECTRICAL BUILD-UP IN THE ATMOSPHERE AT THE BLAST AREA WHILE USING ELECTRICAL CAPS.
   E. SPECIAL CARE SHALL BE TAKEN WITH DETONATING CORDS AND CONNECTORS TO PROTECT FROM THE IMPACT OF FALLING ROCKS OR OTHER IMPEDING OBJECTS.
   F. VEHICLES EQUIPPED WITH RADIO TRANSMITTERS AND PORTABLE 2-WAY RADIOS WILL NOT BE PERMITTED WITHIN 250 FEET OF BLASTING OPERATIONS.
7. A PRE-BLAST SURVEY AND, WHERE NECESSARY, A POST-BLAST SURVEY WILL BE COMPLETED.

WATER SUPPLY AND SEWAGE DISPOSAL SYSTEM NOTES:

1. ALL WATER MAIN TEES, BENDS, REDUCERS AND DEAD ENDS SHALL BE INSTALLED WITH "MEGA LUG" RESTRAINER GLANDS AND EACH JOINT IN THE STRAIGHT PIPE ATTACHED TO ANY OF THE ABOVE FITTINGS SHALL BE RESTRAINED WITH "FIELD-LOC" GASKETS FOR A MINIMUM LENGTH TO PREVENT MOVEMENT AS INDICATED ON SHEET D-5, "WATER MAIN AND SEWER FORCE MAIN PIPE JOINT RESTRAINT DETAIL". TWO 45° BENDS SHALL BE USED AT ALL 90° CHANGES IN DIRECTION. 90° BENDS ARE NOT PERMITTED.
2. METAL DETECTION TAPE SHALL BE USED AND PLACED A MINIMUM OF 12" ABOVE THE PROPOSED WATERMAIN.
3. ALL 8" DUCTILE IRON WATER MAINS SHALL BE CEMENT LINED. ALL WATERMAIN AND APPURTENANCES SHALL COMPLY WITH NSF 61.
4. SANITARY SEWER "AS BUILT" DRAWINGS SHALL BE SUBMITTED TO DUTCHESS COUNTY DEPARTMENT OF HEALTH PRIOR TO THEIR ISSUING AUTHORIZATION TO OPERATE.
5. THE SANITARY SEWER MAIN AND MANHOLES SHALL BE TESTED AS DESCRIBED HEREON.
6. THERE SHALL BE A MINIMUM SEPARATION OF 10 FEET BETWEEN WATER MAINS AND SANITARY SEWER MAINS, AND WATER MAINS AND MANHOLES.
7. ALL WATER AND SANITARY SEWER SERVICES FROM THE R.O.W. TO THE RESIDENCES ARE TO BE OWNED AND MAINTAINED BY THE RESIDENCE.
8. WATER MAINS AND SANITARY SEWER MAINS WILL BE OWNED AND MAINTAINED BY THE OWNER / DEVELOPER PRIOR TO BEING DEDICATED TO THE TOWN OF WAPPINGER.
9. NO HOMES ARE TO BE OCCUPIED UNTIL THE CENTRAL SEWAGE AND CENTRAL WATER FACILITIES ARE ACCEPTED BY THE DCDOH.
10. THE PUMP STATION AND ALL WATER AND SANITARY SEWER MAINS ARE TO BE MAINTAINED AND OPERATED BY THE TOWN OF WAPPINGER, OR ITS AGENTS.
11. FOR INFORMATION REGARDING THE SANITARY SEWER MAIN REFER TO THE UTILITIES PLAN AND PROFILE DRAWINGS, SPECIFICATIONS AND REPORT PREPARED BY POVALL ENGINEERING, PLLC AND ON FILE AT THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.
12. EACH RESIDENTIAL UNIT SHALL BE SEPARATELY METERED TO RECORD ITS WATER USAGE.
13. THE SIZE, TYPE, AND LOCATION OF THE EXISTING WATER MAIN AT THE END OF MAXWELL PLACE AS SHOWN WITHIN THIS PLAN SET WAS DETERMINED FROM TEST HOLES CONDUCTED ON OCTOBER 31, 2005. THE SIZE, TYPE, AND LOCATION OF THE EXISTING WATER MAIN AT THE END OF ALPERT DRIVE AND ON KENDELL DRIVE AS SHOWN WITHIN THIS PLAN SET WERE PROVIDED BY THE TOWN OF WAPPINGER WATER SYSTEM OPERATOR, CAMO POLLUTION CONTROL, INC.
14. ALL GRAVITY SANITARY SEWER LINES SHALL BE PVC SDR-35 PIPE.
15. ALL SANITARY SEWER FORCE MAIN FROM COLLECTION SYSTEM PUMP STATION SHALL BE 4" PVC "DURA-BLUE" OR EQUIVALENT PIPE CONFORMING TO AWWA-C900.
16. ALL SANITARY SEWER FORCE MAIN TEES AND BENDS, SHALL BE INSTALLED WITH "MEGA LUG" RESTRAINER GLANDS AND EACH JOINT IN THE STRAIGHT PIPE ATTACHED TO ANY OF THE ABOVE FITTINGS SHALL BE RESTRAINED WITH "FIELD-LOC" GASKETS FOR A MINIMUM LENGTH TO PREVENT MOVEMENT AS INDICATED ON SHEET D-5, "WATER MAIN AND SEWER SANITARY FORCE MAIN PIPE JOINT RESTRAINT DETAIL".
17. WATER SERVICE LINE CURB VALVES SHALL BE LOCATED A MINIMUM OF 10' FROM THE EDGE OF PAVEMENT.

WATER TESTING AND DISINFECTION:

1. THE NEW WATER MAINS AND APPURTENANCES SHALL BE HYDROSTATIC AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C-600-99 AS A MINIMUM. THE RESULTS OF THE PRESSURE TEST SHALL BE CERTIFIED BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.

   HYDROSTATIC TEST:

   PRESSURE TEST SHALL BE PERFORMED ON SECTIONS BETWEEN VALVES OR AS ORDERED BY THE ENGINEER IN ACCORDANCE WITH AWWA STANDARD C-600-99. ALL EQUIPMENT AND LABOR SHALL BE PROVIDED BY THE CONTRACTOR FOR THE HYDROSTATIC TEST. TESTS SHALL BE PERFORMED AT 150 PSI FOR A TWO(2) HOUR DURATION. TESTS SHALL NOT BE PERFORMED UNTIL ALL WATER MAIN AND APPURTENANCES ARE PROPERLY INSTALLED AND BACKFILL IS COMPLETE. ALL COMPONENTS OF THE WORK INCLUDING HOUSE SERVICES SHALL BE INCLUDED IN THE HYDROSTATIC AND LEAKAGE TESTS.

   THE SECTION TO BE TESTED SHALL BE SLOWLY FILLED WITH WATER AND THE SPECIFIED TEST PRESSURE APPLIED BY PUMP. AIR SHALL BE EXPELLED FROM THE PIPE THROUGH HOUSE SERVICE TAPS OR OTHER TAPS MADE AS MAY BE NECESSARY BY THE CONTRACTOR. THE SECTION UNDER INTIAL SPECIFIED PRESSURE SHALL BE ALLOWED TO "SIT" FOR THE SPECIFIED TEST DURATION OR AS ORDERED BY THE ENGINEER. THE PRESSURE SHALL BE MAINTAINED WITHIN 5 PSI OF THE SPECIFIED TEST PRESSURE FOR THE DURATION OF THE TEST. AT THE END OF THE TEST, THE PRESSURE SHALL BE RESTORED TO THE SPECIFIED TEST PRESSURE. THE AMOUNT OF WATER USED TO MAINTAIN THE SPECIFIED PRESSURE WITHIN 5 PSI AND THE AMOUNT OF WATER NECESSARY TO RESTORE THE SPECIFIED TEST PRESSURE AT THE END OF THE TEST SHALL BE MEASURED TO DETERMINE THE LEAKAGE. NO INSTALLATION WILL BE ACCEPTED IF THE LEAKAGE IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA: (IN INCH-POUND UNITS)

   $$L = [SD(P)^{1/2}] / [133{,}200]$$

   WHERE:
   L = TESTING ALLOWANCE (MAKEUP WATER), IN GALLONS PER HOUR
   N = LENGTH OF PIPE LINE TESTED, IN FEET
   D = NOMINAL DIAMETER OF THE PIPE, IN INCHES
   P = AVERAGE TEST PRESSURE DURING THE LEAKAGE TEST, PSI (GAUGE) AFTER

   UPON COMPLETION OF THE TEST, ANY TAPS SHALL BE TIGHTLY PLUGGED.
2. THE NEW WATER MAINS AND APPURTENANCES SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C-651-99 AS A MINIMUM. HOWEVER, THE TABLET METHOD IS PROHIBITED. THIS PROCEDURE SHALL BE CERTIFIED BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH SHALL BE NOTIFIED UPON COMPLETING THE DISINFECTION OF THE WATER MAIN, SO SAMPLES CAN BE TAKEN FOR BACTERIOLOGICAL TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAMPLING/TESTING REQUIRED AT VARIOUS LOCATIONS ON THE SYSTEM AS DETERMINED BY THE DUTCHESS COUNTY DEPARTMENT OF HEALTH. AT A MINIMUM THE BACTERIOLOGOCAL TEST SHALL INCLUDE TWO (2) SETS OF SAMPLES, TAKEN 24 HOURS APART FOR EACH SECTION. SAMPLING SECTIONS SHALL NOT EXCEED 1,200 FEET, PLUS ONE SET FROM THE END OF THE LINE AND AT LEAST ONE SET FROM EACH BRANCH.

   DISINFECTION:

   PRIOR TO CHLORINATION, THE NEW WATER MAIN AND ALL APPURTENANCES SHALL BE FILLED WITH WATER TO ELIMINATE AIR POCKETS AND SHALL BE FLUSHED TO REMOVE PARTICULATES. THE FLUSHING VELOCITY IN THE MAIN SHALL NOT BE LESS THAN 2.5 FT/S.

   THE WATER MAIN SHALL THAN BE FILLED WITH POTABLE WATER. THE POTABLE WATER SHALL RECEIVE A DOSE OF CHLORINE FED AT A CONSTANT RATE SUCH THAT THE WATER WILL NOT HAVE LESS THAN A 25 mg/L FREE CHLORINE. CHLORINE APPLICATION SHALL NOT CEASE UNTIL THE ENTIRE MAIN IS FILLED WITH HEAVILY CHLORINATED WATER. THE CHLORINATED WATER SHALL BE RETAINED IN THE MAIN FOR AT LEAST 24 HOURS, DURING WHICH TIME ALL VALVES AND HYDRANTS IN THE TREATED SECTION SHALL BE OPERATED TO ENSURE DISINFECTION OF THE APPURTENANCES. AT THE END OF THIS 24 HOUR PERIOD, THE TREATED WATER IN ALL PORTIONS OF THE MAIN SHALL HAVE RESIDUAL OF NOT LESS THAN 10 mg/L FREE CHLORINE. IF CHLORINE LEVELS ARE BELOW 10 mg/L IN ANY PORTION OF THE MAIN, DISINFECTION PROCEDURES SHALL BE REPEATED.

   UPON MEASURING ACCEPTABLE LEVELS OF CHLORINE FOLLOWING THE 24 HOUR PERIOD, THE HEAVILY CHLORINATED WATER SHALL BE FLUSHED FROM THE MAIN WITH POTABLE WATER UNTIL CHLORINE MEASUREMENTS SHOW THAT THE CONCENTRATION IN THE WATER LEAVING THE MAIN IS NO HIGHER THAN THAT GENERALLY PREVAILLING IN THE DISTRIBUTION SYSTEM OR IS ACCEPTABLE FOR DOMESTIC USE.
3. UPON COMPLETION OF THE FACILITIES, THE FINISHED WORKS SHALL BE INSPECTED, TESTED, AND CERTIFIED COMPLETE TO THE COUNTY HEALTH DEPARTMENT AND THE TOWN OF WAPPINGER BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER. NO PART OF THE FACILITIES SHALL BE PLACED INTO SERVICE UNTIL ACCEPTED BY THE DUTCHESS COUNTY DEPARTMENT OF HEALTH. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH SHALL BE NOTIFIED TWO DAYS PRIOR TO COMMENCEMENT OF THE PRESSURE AND LEAKAGE TEST IN ORDER THAT IT MAY PERFORM AN INSPECTION.
4. NO CORPORATION VALVES AND OR FITTINGS INSTALLED SOLEY FOR TESTING PURPOSES SHALL BE LEFT IN THE WATER MAIN AFTER TESTING IS COMPLETE. ALL CORPORATIONS SHALL BE REMOVED AND THREADED PLUGS INSTALLED (UNDER PRESSURE).

VACUUM TESTING OF SANITARY SEWER MANHOLES

1. THIS TEST METHOD IS ONLY APPLICABLE TO PRECAST CONCRETE MANHOLES.
2. ALL LIFTING HOLES AND EXTERIOR JOINTS SHALL BE FILLED AND POINTED WITH AN APPROVED NON-SHRINKING MORTAR.
3. MANHOLES ARE TO BE TESTED IMMEDIATELY AFTER ASSEMBLY AND BEFORE BACKFILLING. NO STANDING WATER SHALL BE ALLOWED IN THE MANHOLE EXCAVATION, WHICH MAY AFFECT THE ACCURACY OF THE TEST.
4. ALL PIPES AND OTHER OPENINGS INTO THE MANHOLE SHALL BE SUITABLY PLUGGED IN SUCH A MANNER AS TO PREVENT DISPLACEMENT OF THE PLUGS WHILE THE VACUUM IS DRAWN.
5. INSTALLATION AND OPERATION OF VACUUM EQUIPMENT AND INDICATING DEVICES SHALL BE IN ACCORDANCE WITH EQUIPMENT SPECIFICATIONS AND INSTRUCTIONS PROVIDED BY THE MANUFACTURER.
6. THE TEST HEAD MAY BE PLACED IN THE CONE SECTION OF THE MANHOLE. THE RIME-CONE JOINT IS NOT USUALLY TESTED.
7. A VACUUM OF 10 INCHES OF MERCURY SHALL BE DRAWN. THE TIME FOR THE VACUUM TO DROP TO 9 INCHES OF MERCURY SHALL BE RECORDED.
8. ACCEPTANCE FOR 4 FT. DIAMETER MANHOLES SHALL BE DEFINED AS WHEN THE TIME TO DROP TO 9 INCHES OF MERCURY MEETS OR EXCEEDS THE FOLLOWING:

MANHOLE DEPTH	DIAMETER	TIME TO DROP 1" Hg
10 FT OR LESS	4 FT	60 SECONDS
10 FT TO 15 FT	4 FT	75 SECONDS
15 FT TO 25 FT	4 FT	90 SECONDS

9. FOR MANHOLES 5 FT. IN DIAMETER, ADD AN ADDITIONAL 15 SECONDS AND FOR MANHOLES 6 FT. IN DIAMETER, ADD AN ADDITIONAL 30 SECONDS TO THE TIME REQUIREMENTS FOR 4 FT. DIAMETER MANHOLES.

TESTING OF SANITARY SEWER PIPE:

THE CONTRACTOR SHALL TEST THE COMPLETED SEWERS, INCLUDING MANHOLES AND LATERALS, FOR LEAKAGE BY INFILTRATION, EXFILTRATION OR LOW-PRESSURE AIR EXFILTRATION TESTS AND DEFLECTION TEST (MANDREL) AS SPECIFIED HEREIN. THE TESTS WILL BE CONDUCTED AS APPROVED BY THE OWNER'S FIELD REPRESENTATIVE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY EQUIPMENT, MATERIALS AND LABOR FOR PERFORMING THE TESTS AS SPECIFIED.

THE CONTRACTOR SHALL NOTIFY THE OWNER'S FIELD REPRESENTATIVE AT LEAST 48 HOURS PRIOR TO THE START OF TESTING. TESTING SHALL ONLY BE PERFORMED IN THE PRESENCE OF THE OWNER'S FIELD REPRESENTATIVE.

SECTIONS OF PIPE TESTED FOR INFILTRATION AND EXFILTRATION PRIOR TO COMPLETION OF THE PROJECT SHALL BE SUBJECT TO ADDITIONAL LEAKAGE TESTS, IF WARRANTED IN THE OPINION OF THE OWNER'S FIELD REPRESENTATIVE, PRIOR TO ACCEPTANCE OF THE PROJECT.

THE TEST LENGTH INTERVALS FOR EITHER TYPE OF LEAKAGE TEST SHALL BE APPROVED BY THE OWNER'S FIELD REPRESENTATIVE, BUT IN NO EVENT SHALL THEY EXCEED ONE THOUSAND (1000) FEET. IN THE CASE OF SEWERS LAID ON STEEP GRADES, THE LENGTH OF LINE TO BE TESTED BY EXFILTRATION AT ANY ONE TIME MAY BE LIMITED BY THE MAXIMUM ALLOWABLE INTERNAL PRESSURE ON THE PIPE AND JOINTS AT THE LOWER END OF THE LINE.

THE TEST PERIOD, WHEREIN THE MEASUREMENTS ARE TAKEN SHALL NOT BE LESS THAN FOUR (4) HOURS IN EITHER TYPE OF TEST.

A. INFILTRATION & EXFILTRATION TEST
   1. INFILTRATION TEST
      THE TEST MAY BE USED ONLY WHEN GROUND WATER LEVELS ARE AT LEAST FIVE (5) FEET ABOVE THE TOP OF THE PIPE FOR THE ENTIRE LENGTH OF THE SECTION TO BE TESTED DURING THE ENTIRE PERIOD OF THE TEST. GROUND WATER LEVELS MAY BE MEASURED IN AN OPEN TRENCH OR IN STANDPIPES PREVIOUSLY PLACED IN BACKFILLED TRENCHES DURING THE BACKFILLING OPERATIONS. WHEN STANDPIPES ARE INSTALLED IN THE BACKFILL FOR GROUND WATER MEASUREMENT, THE LOWER ENDS OF THESE SHALL BE SATISFACTORILY EMBEDDED IN A MASS OF CRUSHED STONE OR GRAVEL TO MAINTAIN FREE PERCOLATION AND DRAINAGE. INFILTRATION THROUGH JOINTS SHALL BE MEASURED BY USING A WATERTIGHT WEIR OR ANY OTHER APPROVED DEVICE FOR VOLUMETRIC MEASUREMENT INSTALLED AT THE LOWER END OF THE SECTION UNDER TEST.
   2. EXFILTRATION TEST
      THIS TEST CONSISTS OF FILLING THE PIPE WITH WATER TO PROVIDE A HEAD OF AT LEAST FIVE (5) FEET ABOVE THE TOP OF THE PIPE OR FIVE (5) FEET ABOVE GROUND WATER, WHICHEVER IS HIGHER, AT THE HIGHEST POINT OF THE PIPE LINE UNDER TEST, AND THEN MEASURING THE LOSS OF WATER FROM THE LINE BY THE AMOUNT WHICH MUST BE ADDED TO MAINTAIN THE ORIGINAL LEVEL. IN THIS TEST THE LINE MUST REMAIN FILLED WITH WATER FOR AT LEAST TWENTY FOUR (24) HOURS PRIOR TO THE TAKING OF MEASUREMENTS. EXFILTRATION SHALL BE MEASURED BY THE DROP OF WATER LEVEL IN A CLOSED-END STANDPIPE OR IN ONE OF THE SEWER MANHOLES AVAILABLE FOR CONVENIENT MEASURING.

      WHEN A STANDPIPE AND PLUG ARRANGEMENT IS USED IN THE UPPER MANHOLE OF A LINE UNDER TEST, THERE MUST BE SOME POSITIVE METHOD OF RELEASING ENTRAPPED AIR IN THE SEWER PRIOR TO TAKING MEASUREMENTS.

      THE TOTAL LEAKAGE OF ANY SECTION TESTED SHALL NOT EXCEED THE RATE OF 50 GALLONS PER DAY PER MILE PER INCH OF NOMINAL PIPE DIAMETER. FOR PURPOSES OF DETERMINING THE MAXIMUM ALLOWABLE LEAKAGE, MANHOLES SHALL BE CONSIDERED AS SECTIONS OF 48 INCH DIAMETER PIPE, FIVE (5) FEET LONG, AND THE EQUIVALENT LEAKAGE ALLOWANCE SHALL BE 2.25 GALLONS PER MANHOLE PER 24 HOURS.

B. LOW-PRESSURE AIR EXFILTRATION TEST
   1. THE SEWER MAINS AND/OR LATERALS SHALL BE TESTED FOR LEAKAGE BY THE USE OF LOW-PRESSURE AIR AS SPECIFIED HEREINAFTER AND AS APPROVED BY THE OWNER'S FIELD REPRESENTATIVE. THE TEST LENGTH SHALL NOT EXCEED ONE (1) INTERVAL OF PIPE BETWEEN TWO (2) MANHOLES. AIR TEST PROCEDURES MAY BE DANGEROUS AND THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT BLOWOUTS.
   2. AFTER THE PIPE HAS BEEN BACKFILLED AND CLEANED, PNEUMATIC PLUGS SHALL BE PLACED IN THE LINE AT EACH MANHOLE AND INFLATED TO 25 PSI. LOW-PRESSURE AIR SHALL BE INTRODUCED INTO THIS SEALED LINE UNTIL THE INTERNAL AIR PRESSURE REACHES 4 PSI GREATER THAN THE AVERAGE BACK PRESSURE OF ANY GROUND WATER THAT MAY BE OVER THE PIPE. AT LEAST TWO (2) MINUTES SHALL BE ALLOWED FOR THE AIR PRESSURE TO STABILIZE.
   3. AFTER THE STABILIZATION PERIOD (3.5 PSI MINIMUM PRESSURE IN THE PIPE), THE PORTION OF LINE BEING TESTED SHALL BE ACCEPTABLE IF THE TIME REQUIRED IN MINUTES FOR THE PRESSURE TO DECREASE FROM 3.5 TO 3.0 PSI (GREATER THAN THE AVERAGE BACK PRESSURE OF ANY GROUND WATER THAT MAY BE OVER THE PIPE) IS NOT LESS THAN 5.0 MINUTES FOR AN 8 (IN.) ø PIPE.

C. DEFLECTION TEST
   1. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM.
   2. NO PIPE SHALL EXCEED A DEFLECTION OF 5 PERCENT. IF DEFLECTION EXCEED 5 PERCENT, REPLACEMENT OR CORRECTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH REQUIREMENTS IN APPROVED SPECIFICATIONS.
   3. THE RIGID BALL OR MANDREL USED FOR THE DEFLECTION TEST SHALL HAVE A DIAMETER NOT LESS THAN 95 PERCENT OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE DEPENDING ON WHICH IS SPECIFIED IN THE ASTM SPECIFICATION, INCLUDING THE APPENDIX, TO WHICH THE PIPE IS MANUFACTURED. THE TEST SHALL BE BE

DCDOH STANDARD NOTES:

1. THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:
   A. DESIGN STANDARDS FOR WASTEWATER TREATMENT WORKS, INSTITUTIONAL & COMMERCIAL SEWERAGE FACILITIES.
   B. "RECOMMENDED STANDARDS FOR SEWAGE TREATMENT WORKS" (TEN STATES).
   C. "NEW YORK STATE DEPARTMENT OF HEALTH AND DUTCHESS COUNTY DEPARTMENT OF HEALTH POLICIES, PROCEDURES AND STANDARDS."
   D. DUTCHESS COUNTY DEPARTMENT OF HEALTH SANITARY CODE, ARTICLE XI AND ARTICLE XIX.
   E. "DUTCHESS COUNTY DEPARTMENT OF HEALTH CERTIFICATE OF APPROVAL LETTER."
2. THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES FOR ARRANGEMENT OF SEWAGE DISPOSAL AND TREATMENT AND WATER SUPPLY FACILITIES; AND, AS A CONDITION OF THIS APPROVAL, A CONSTRUCTION INSPECTION BY A REPRESENTATIVE OF THE DUTCHESS COUNTY HEALTH DEPARTMENT SHALL BE DONE TO DETERMINE THAT CONSTRUCTION AT THE TIME OF INSPECTION WAS COMPLETED IN GENERAL CONFORMANCE WITH THE APPROVED PLANS AND ANY AMENDMENT THEREOF.
3. APPROVAL OF ANY PLAN(S) OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL, THE PLAN(S) SHALL BE RE-SUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECT TO COMPLIANCE WITH THE TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION.
4. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH SHALL BE CONTACTED PRIOR TO THE COMMENCEMENT OF THE HOME CONSTRUCTION AND/OR ISSUANCE OF A BUILDING PERMIT FOR A PRE-CONSTRUCTION INSPECTION TO ENSURE THAT THE ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL ARE COMMENCED IN ACCORDANCE WITH THE APPROVED PLANS AND AMENDMENTS THERETO AND GENERALLY ACCEPTED STANDARDS.
5. ALL WELLS AND SDS EXISTING OR APPROVED WITHIN 200 FEET OF THE PROPOSED WELLS AND SDS ARE SHOWN ON THIS PLAN ALONG WITH ANY OTHER ENVIRONMENTAL HAZARDS IN THE AREA THAT MAY AFFECT THE DESIGN AND FUNCTIONAL ABILITY OF THE SDS AND WELL.
6. THE UNDERSIGNED OWNERS OF THE PROPERTY ON SHEET T-1 STATE THAT THEY ARE FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENT TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

DCDOH STANDARD NOTES FOR WATER SYSTEMS:

1. THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:
   A. "RECOMMENDED STANDARDS FOR WATER WORKS" (TEN STATES).
   B. "RURAL WATER SUPPLY, NEW YORK STATE DEPARTMENT OF HEALTH".
   C. "NEW YORK STATE DEPARTMENT OF HEALTH AND DUTCHESS COUNTY DEPARTMENT OF HEALTH POLICIES, PROCEDURES AND STANDARDS".
   D. "DUTCHESS COUNTY DEPARTMENT OF HEALTH SANITARY CODE, ARTICLE XI AND ARTICLE V".
   E. "DUTCHESS COUNTY DEPARTMENT OF HEALTH CERTIFICATE OF APPROVAL LETTER".
2. THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES FOR ARRANGEMENT OF SEWAGE DISPOSAL AND TREATMENT AND WATER SUPPLY FACILITIES.
3. UPON COMPLETION OF THE FACILITIES, THE FINISHED WORKS SHALL BE INSPECTED, TESTED, AND CERTIFIED COMPLETE TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH BY THE NEW YORK STATE LICENSED PROFESSIONAL ENGINEER SUPERVISING CONSTRUCTION. NO PART OF THE FACILITIES SHALL BE PLACED INTO SERVICE UNTIL ACCEPTED BY THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.
4. APPROVAL OF ANY PLAN(S) OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL, THE PLAN(S) SHALL BE RE-SUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECT TO COMPLIANCE WITH THE TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION.
5. ALL WELLS AND SDS EXISTING OR APPROVED WITHIN 200 FEET OF THE PROPOSED WELLS AND SDS ARE SHOWN ON THIS PLAN ALONG WITH ANY OTHER ENVIRONMENTAL HAZARDS IN THE AREA THAT MAY AFFECT THE DESIGN AND FUNCTIONAL ABILITY OF THE SDS AND WELL.
6. THE UNDERSIGNED OWNERS OF THE PROPERTY HEREON STATE THAT THEY ARE FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENT TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.
7. ALL SERVICE LINES ARE THE RESPONSIBILITY OF THE HOMEOWNER UP TO THE PROPERTY LINE. THE WATER COMPANY SHALL BE RESPONSIBLE FOR ALL VALVES AND PIPES WHICH ARE NOT ON THE HOMEOWNER'S PROPERTY.

DCDOH ADDITIONAL NOTES:

1. THAT, NO BUILDINGS ARE TO BE OCCUPIED AND THE NEW WATER SYSTEM SHALL NOT BE PLACED INTO SERVICE, UNTIL A "COMPLETED WORKS APPROVAL" IS ISSUED UNDER SECTION 5-1.22(D) OF PART 5 OF THE NEW YORK STATE SANITARY CODE (10NYCRR5).
2. THAT, NO BUILDINGS ARE TO BE OCCUPIED AND THE NEW WASTEWATER COLLECTION SYSTEM SHALL NOT BE PLACED INTO SERVICE UNTIL, A "CERTIFICATE OF CONSTRUCTION COMPLIANCE" IS ISSUED UNDER SECTION 19.7 OF ARTICLE 19 OF THE DUTCHESS COUNTY SANITARY CODE.
3. ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORMWATER POLLUTION PREVENTION WATER QUALITY AND QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.

DCDOH STANDARD NOTES FOR POOLS:

1. THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:
   A. "THE NEW YORK STATE SANITARY CODE, PART 6: SUBPART 6-1, SWIMMING POOLS."
   B. "CERTIFICATE OF APPROVAL OF THE PLANS FOR THE CONSTRUCTION OR RENOVATION OF A SWIMMING POOL."
   C. "DUTCHESS COUNTY DEPARTMENT OF HEALTH SANITARY CODE, ARTICLE VI."
   D. "NEW YORK STATE DEPARTMENT OF HEALTH AND DUTCHESS COUNTY DEPARTMENT OF HEALTH POLICIES, PROCEDURES AND STANDARDS."
   E. "NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE, 9 NYCRR, SUBTITLE S, CHAPTER 1.ò
2. APPROVAL OF ANY PLAN(S) OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL, THE PLAN(S) SHALL BE RE-SUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECT TO COMPLIANCE WITH THE TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION.
3. THE CONSTRUCTION OR RENOVATION OF THE POOL SHALL BE UNDER THE SUPERVISION OF A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT. THE LICENSED PROFESSIONAL SHALL SUBMIT A CONSTRUCTION COMPLIANCE CERTIFICATE TO THE DUTCHESS COUNTY HEALTH DEPARTMENT STATING THAT THE CONSTRUCTION OR RENOVATION WAS COMPLETED IN CONFORMANCE WITH THE APPROVED PLANS, REPORTS, AND SPECIFICATIONS.
4. ANY CHANGES IN THESE PLANS SHALL RECEIVE PRIOR WRITTEN APPROVAL FROM THE DUTCHESS COUNTY HEALTH DEPARTMENT.
5. THE DCDOH SHALL BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION, AND UPON COMPLETION OF CONSTRUCTION, SO INSPECTIONS CAN BE CONDUCTED.
6. ALL ELECTRICAL WIRING SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND APPLICABLE STATE AND LOCAL BUILDING CODES. GROUND FAULT CIRCUIT INTERRUPTERS SHALL BE PROVIDED FOR LIGHTING AND OTHER ELECTRICAL CIRCUITS IN THE POOL AREA. A CERTIFICATE OF ELECTRICAL COMPLIANCE ISSUED BY THE NY BOARD OF FIRE UNDERWRITERS SHALL BE OBTAINED FOR ANY NEW OR MODIFIED ELECTRICAL SYSTEMS.
7. THE LICENSED DESIGN PROFESSIONAL CERTIFIES THE STRUCTURAL STABILITY AND SAFETY OF THE POOL DURING FULL AND EMPTY CONDITIONS.
8. PRIOR TO A PERMIT TO OPERATE BEING GRANTED TWO COPIES OF THE OPERATION AND MAINTENANCE MANUAL MUST BE DELIVERED TO DUTCHESS COUNTY HEALTH DEPARTMENT AND TWO COPIES MUST BE DELIVERED TO THE OWNER.
9. THE POOL SHALL NOT BE OPERATED UNTIL AN OPERATING PERMIT HAS BEEN ISSUED BY THE DUTCHESS COUNTY HEALTH DEPARTMENT.
10. THE UNDERSIGNED OWNERS OF THE PROPERTY HEREON STATE THAT THEY ARE FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENT TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

TOWN STORMWATER NOTES:

1. THE TRAINED INDIVIDUAL(S) SHALL PROVIDE DOCUMENTATION TO THE TOWN THAT HE/SHE HAS RECEIVED THE REQUIRED TRAINING.
2. THE OWNER SHALL GRANT TO THE TOWN AND OTHER AGENCIES HAVING JURISDICTION THE RIGHT TO ENTER THE PROPERTY AT REASONABLE TIMES AND IN A REASONABLE MANNER FOR THE PURPOSE OF INSPECTION.
3. THE TOWN STORMWATER MANAGEMENT OFFICER MAY REQUIRE OTHER INSPECTIONS AS NECESSARY TO DETERMINE COMPLIANCE. AS REQUIRED BY THE STORMWATER MANAGEMENT OFFICER, TO OBTAIN INSPECTIONS THE OWNER/OPPERATOR OR CONTRACTOR SHALL NOTIFY THE TOWN ENFORCEMENT OFFICIALS AT LEAST 48 HOURS BEFORE ANY OF THE FOLLOWING:
   A. START OF CONSTRUCTION.
   B. INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES.
   C. COMPLETION OF SITE CLEARING.
   D. COMPLETION OF ROUGH GRADING.
   E. COMPLETION OF FINAL GRADING.
   F. CLOSE OF THE CONSTRUCTION SEASON.
   G. COMPLETION OF FINAL LANDSCAPING.
   H. SUCCESSFUL ESTABLISHMENT OF LANDSCAPING IN PUBLIC AREAS.
4. AS-BUILT PLANS FOR ANY STORMWATER MANAGEMENT FACILITIES AND PRACTICES LOCATED ON THE SITE AFTER FINAL CONSTRUCTION IS COMPLETED SHALL BE PROVIDED TO THE TOWN. THE PLAN MUST SHOW THE FINAL DESIGN SPECIFICATIONS FOR ALL STORMWATER MANAGEMENT FACILITIES AND MUST BE CERTIFIED BY A NYS LICENSED LAND SURVEYOR AND A NYS LICENSED PROFESSIONAL ENGINEER.

REVISIONS

DATE:	DESCRIPTION:

POVALL ENGINEERING, PLLC

WILLIAM H. POVALL III, P.E.
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HILLTOP VILLAGE AT WAPPINGER

GENERAL NOTES

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: AS SHOWN

CONSTRUCTION MANAGEMENT NOTES:

1. CONSTRUCTION EQUIPMENT AND PRIVATE CONSTRUCTION WORKER VEHICLES WILL BE REMOVED FROM THE EDGE OF PAVEMENT DURING NON-WORKING HOURS, THEIR MOVEMENT WILL BE MINIMIZED IN TRAVEL LANES, AND WILL THEY BE PARKED IN NON-HAZARDOUS AREAS WHEN NOT IN USE.
2. ALL TRAFFIC CONTROL INFRASTRUCTURE RELATED TO A RESPECTIVE PHASE WILL BE COMPLETED PRIOR TO BEGINNING OF THE NEXT PHASE.
3. FLAG PERSONS WILL BE USED IN LOCATIONS WHERE SIGHT DISTANCE IS IMPAIRED.
4. CONTRACTOR WILL SCHEDULE CONSTRUCTION OPERATIONS AS TO MINIMIZE INTERRUPTION OF VEHICLE TRAFFIC, INCLUDING THE SCHEDULING OF UTILITY COMPANY WORK, PUBLIC MAINTENANCE, AND SUB-CONTRACTED WORK.
5. TRAFFIC WILL BE MAINTAINED AND PROTECTED, VIA PROPER CONTROL DEVICES AND METHODS, IN WORK ZONES THROUGHOUT CONSTRUCTION PERIOD IN ACCORDANCE TO ALL APPLICABLE LAWS (IN ADDITION TO THE REQUIREMENTS OF THE TOWN ENGINEER).
6. NO MATERIAL IS TO BE PLACED ON THE SHOULDER EXCEPT THAT WHICH IS TO BE USED THAT DAY.
7. DIAMOND SHAPED, ADVANCE WARNING SIGNS, SHALL BE USED FOR ALL ADVANCE WARNING SIGNS THAT MAY BE EITHER DIAMOND OR RECTANGULAR SHAPED ACCORDING TO PART 238 OF THE NEW YORK STATE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (NYS MUTCD).
8. THE CONTRACTOR SHALL COORDINATE HIS WORK SO THERE IS NO CONFLICT WITH CONSTRUCTION SIGNING IN OVERLAPPING WORK AREAS, AND SO THAT LANE CONTINUITY IS MAINTAINED BETWEEN WORK AREAS. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ANY CONTRACTORS, PUBLIC MAINTENANCE, OR UTILITIES COMPANY'S OPERATIONS IN THE AREA TO ENSURE PROPER MAINTENANCE OF TRAFFIC.
9. THE CONTRACTOR SHALL MAKE CERTAIN PLACEMENT OF THE CONES, DRUMS AND MARKERS OR BARRICADES, SO AS TO NOT INTERFERE WITH SIGHT DISTANCE. TYPICAL SPACING SHALL BE APPROXIMATELY ONE FOOT PER MILE OF APPROACH SPEED.
10. TAPER LENGTHS FOR CLOSURES AND LATERAL SHIFTS OF TRAVEL LANES SHALL CONFORM TO TABLE 262-2 OF THE NYS MUTCD USING AN APPROACH SPEED OF 40 MPH OR AS ORDERED BY THE TOWN ENGINEER.
11. THE CORRECT SEQUENCE AND SPACING OF SIGNS, WHETHER PERMANENT, TEMPORARY OR CONSTRUCTION, MUST BE MAINTAINED AT ALL TIMES, IN ACCORDANCE WITH THE NYS MUTCD.
12. PRIOR TO THE START OF ANY CONSTRUCTION PHASE, ALL PROPOSED MAINTENANCE AND PROTECTION OF TRAFFIC RELATED WORK FOR THAT PHASE, AS DETERMINED BY THE TOWN ENGINEER, SHALL BE COMPLETE.
13. THE CONTRACTOR SHALL PROVIDE FLAGGERS WHERE SIGHT DISTANCES ARE IMPAIRED BY CONSTRUCTION OPERATIONS OR AS ORDERED BY THE TOWN ENGINEER.
14. ALL AREAS DISTURBED AS A RESULT OF THE PROPOSED IMPROVEMENTS SHALL BE TOPSOILED, SEEDED, AND MULCHED.
15. ALL CONSTRUCTION AND TRAFFIC CONTROL WILL BE UNDER THE PURVIEW OF THE TOWN OF WAPPINGER ENGINEER.

POLLUTION PREVENTION CONTROL NOTES:

GOOD HOUSEKEEPING PRACTICES ARE DESIGNED TO MAINTAIN A CLEAN AND ORDERLY WORK ENVIRONMENT. GOOD HOUSEKEEPING MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS BY THOSE PARTIES INVOLVED WITH THE DIRECT CARE AND DEVELOPMENT OF THE SITE. THE FOLLOWING MEASURES SHOULD BE IMPLEMENTED TO CONTROL THE POSSIBLE EXPOSURE OF HARMFUL SUBSTANCES AND MATERIALS TO STORMWATER RUNOFF:

1. MATERIAL RESULTING FROM THE CLEARING AND GRUBBING OPERATION SHALL BE STOCKPILED AWAY FROM STORM DRAINAGE, WATER BODIES AND/OR WATERCOURSES AND SURROUNDED WITH ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES. SOIL STOCKPILE LOCATIONS SHALL BE EXPOSED NO LONGER THAN 14 DAYS BEFORE SEEDING.
2. EQUIPMENT MAINTENANCE AREAS SHALL BE PROTECTED FROM STORMWATER FLOWS AND SHALL BE SUPPLIED WITH APPROPRIATE WASTE RECEPTACLES FOR SPENT CHEMICALS, SOLVENTS, OILS, GREASES, GASOLINE, AND ANY POLLUTANTS THAT MIGHT CONTAMINATE THE SURROUNDING HABITAT AND/OR WATER SUPPLY. EQUIPMENT WASH-DOWN ZONES SHALL BE LOCATED WITHIN AREAS DRAINING TO SEDIMENT CONTROL DEVICES.
3. THE USE OF DETERGENTS FOR LARGE-SCALE (I.E., VEHICLES, BUILDINGS, PAVEMENT SURFACES, ETC.) WASHING IS PROHIBITED.
4. MATERIAL STORAGE LOCATIONS AND FACILITIES (I.E., COVERED STORAGE AREAS, STORAGE SHEDS, ETC.) SHALL BE LOCATED ON-SITE AND SHALL BE STORED ACCORDING TO THE MANUFACTURER'S STANDARDS IN A DEDICATED STAGING AREA. CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS, AND OTHER TOXIC MATERIAL MUST BE STORED IN WATERPROOF CONTAINERS. RUNOFF CONTAINING SUCH MATERIALS MUST BE COLLECTED, REMOVED FROM THE SITE, TREATED AND DISPOSED AT AN APPROVED SOLID WASTE OR CHEMICAL DISPOSAL FACILITY.
5. HAZARDOUS SPILLS SHALL BE IMMEDIATELY CONTAINED TO PREVENT SUCH POLLUTANTS FROM ENTERING THE SURROUNDING HABITAT AND/OR WATER SUPPLY. SPILL KITS SHALL BE PROVIDED ON-SITE AND SHALL BE DISPLAYED IN A PROMINENT LOCATION FOR EASE OF ACCESS AND USE. SPILLS GREATER THAN FIVE (5) GALLONS SHALL BE REPORTED TO THE NYSDEC RESPONSE UNIT AT 1-800-457-7362. IN ADDITION, A RECORD OF THE INCIDENT(S) AND/OR NOTIFICATIONS SHALL BE DOCUMENTED AND ATTACHED TO THE SWPPP.
6. PORTABLE SANITARY WASTE FACILITIES SHALL BE PROVIDED ON-SITE FOR WORKERS AND SHALL BE PROPERLY MAINTAINED.
7. DUMPSTERS AND/OR DEBRIS CONTAINERS SHALL BE LOCATED ON-SITE AND SHALL BE OF ADEQUATE SIZE TO MANAGE RESPECTIVE MATERIALS. REGULAR COLLECTION AND DISPOSAL OF WASTES SHALL OCCUR AS REQUIRED.
8. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FEET FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES. EACH FACILITY SHOULD BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS AREAS TO PREVENT DISTURBANCE OR TRACKING. A SIGN SHOULD BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHALL BE REMOVED AND DISPOSED OF. MATERIALS USED TO CONSTRUCT THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED AND DISPOSED OF. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED AND/OR REPAIRED, SEEDED, AND MULCHED FOR FINAL STABILIZATION.
9. NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION, WHICH DISCHARGES FROM THE SITE, MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE. IT CAN BE RETAINED IN THE PONDS UNTIL IT INFILTRATES AND EVAPORATES.

SPDES GENERAL PERMIT GP-0-10-001 COMPLIANCE NOTES:

1. THE NOTICE OF INTENT (NOI) AND SIGNED MS4 SWPPP ACCEPTANCE FORM (IF APPLICABLE) SHALL BE FILED WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC). A COPY OF THE NOI, SIGNED MS4 SWPPP ACCEPTANCE FORM (IF APPLICABLE), AND THE NOI ACKNOWLEDGEMENT SHALL BE MAINTAINED AT THE SITE IN THE LOG BOOK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE FOLLOWING:
   A. THE CONTRACTOR AND HIS/HER SUBCONTRACTORS SHALL READ AND UNDERSTAND THE CONDITIONS OF THE "NYSDEC SPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES", GP-0-10-001.
   B. THE CONTRACTOR AND HIS/HER SUBCONTRACTORS SHALL READ AND SIGN THE CERTIFICATION STATEMENT PROVIDED IN THE APPENDICES OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
   C. THE CONTRACTOR AND HIS/HER SUBCONTRACTORS SHALL IDENTIFY THE TRAINED INDIVIDUAL(S) THAT WILL BE RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF THE SWPPP. THE TRAINED INDIVIDUAL(S) SHALL READ AND SIGN THE CERTIFICATION STATEMENT PROVIDED IN THE SWPPP. A COPY OF THE SIGNED CERTIFICATION STATEMENT SHALL BE PLACED IN THE SITE LOG BOOK AND GIVEN TO THE TOWN FOR THEIR RECORDS.
   D. THE TRAINED INDIVIDUAL(S) SHALL PROVIDE DOCUMENTATION THAT HE/SHE HAS RECEIVED TRAINING IN PROPER EROSION AND SEDIMENT CONTROL PRINCIPLES FROM A SOIL AND WATER CONSERVATION DISTRICT, OR OTHER NYSDEC ENDORSED ENTITY TO THE TOWN FOR THEIR RECORDS.
   E. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS NECESSARY FOR THE WORK OUTLINED HEREIN.
   F. THE TRAINED CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF ALL STORMWATER POLLUTION PREVENTION MEASURES OUTLINED IN THE SWPPP AND PROJECT PLANS.
   G. THE CONTRACTOR SHALL HOLD A PRECONSTRUCTION CONFERENCE WITH THE OWNER'S REPRESENTATIVES AT LEAST ONE WEEK PRIOR TO COMMENCEMENT OF CONSTRUCTION.
   H. THE CONTRACTOR/OWNER SHALL HAVE A QUALIFIED PROFESSIONAL, AS DEFINED WITHIN THE NYSDEC SPDES GENERAL PERMIT GP-0-10-001, CONDUCT AN INITIAL SITE ASSESSMENT PRIOR TO CONSTRUCTION FOLLOWING THE COMMENCEMENT OF CONSTRUCTION AT LEAST EVERY 7 CALENDAR DAYS. REFER TO SWPPP FOR INSPECTION GUIDELINES.
   I. PRIOR TO COMMENCEMENT OF CONSTRUCTION, A QUALIFIED PROFESSIONAL (HIRED BY CONTRACTOR/OWNER) SHALL CONDUCT AN ASSESSMENT OF THE SITE AND CERTIFY THAT THE APPROPRIATE EROSION AND SEDIMENT CONTROL STRUCTURES AS DEPICTED ON THE PLANS HAVE BEEN ADEQUATELY INSTALLED AND IMPLEMENTED. CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER ONCE THE EROSION AND SEDIMENT CONTROL STRUCTURES HAVE BEEN INSTALLED. REFER TO SWPPP FOR INSPECTION GUIDELINES.
   J. A RECORD OF ALL EROSION AND SEDIMENT CONTROL INSPECTION REPORTS SHALL BE MAINTAINED AT THE SITE IN A LOG BOOK. THE SITE LOG BOOK SHALL BE MAINTAINED ON-SITE AND BE MADE AVAILABLE TO THE PERMITTING AUTHORITY. THE OWNER/CONTRACTOR SHALL POST AT THE SITE, IN A PUBLICLY ACCESSIBLE LOCATION, A SUMMARY OF THE SITE INSPECTION ACTIVITIES ON A MONTHLY BASIS.
3. ONCE CONSTRUCTION ACTIVITIES ARE COMPLETE, THE OWNER/OPERATOR SHALL HAVE A QUALIFIED PROFESSIONAL CONDUCT A FINAL SITE ASSESSMENT TO DETERMINE IF THE SITE MEETS THE FINAL STABILIZATION CRITERIA AS DEFINED WITHIN THE NYSDEC SPDES GENERAL PERMIT GP-0-10-001. IF THE SITE IS DETERMINED TO MET THE FINAL STABILIZATION CRITERIA, A NOTICE OF TERMINATION (NOT) SHALL BE COMPLETED AND SUBMITTED TO THE NYSDEC TO TERMINATE COVERAGE UNDER THE SPDES GENERAL PERMIT GP-0-10-001.

EROSION & SEDIMENT CONTROL INSPECTION AND MAINTENANCE SCHEDULE				
STRUCTURE	DAILY	WEEKLY	NECESSARY TO MAINTAIN FUNCTION	AFTER COMPLETION OF CONSTRUCTION
STABILIZED CONSTRUCTION ENTRANCE	--	INSPECT	CLEAN/REPLACE STONE AND FABRIC	REMOVE
SILT FENCE	--	INSPECT	CLEAN/REPLACE	REMOVE
DUST CONTROL	INSPECT	--	PLACE MULCH/HAY OR SPRAY WATER	N/A
INLET PROTECTION	--	INSPECT	CLEAN/REPAIR/REPLACE STONE AND BLOCK	REMOVE
VEGETATIVE ESTABLISHMENT	--	INSPECT	WATER/RE-SEED/ RE-MULCH	PERMANENT
CHECK DAMS	--	INSPECT	CLEAN/REPLACE STONE	PERMANENT
TEMPORARY SEDIMENT BASIN	INSPECT	INSPECT	CLEAN/REMOVE ACCUMULATED SEDIMENT	REMOVE
CONCRETE WASHOUT FACILITY	--	INSPECT	REPAIR HAYBALES & LINER/ REMOVE HARDEN CONCRETE/ CONSTRUCT NEW FACILITIES	REMOVE
TEMPORARY SOIL STOCKPILE	INSPECT	INSPECT	REPAIR/REPLACE SILT FENCE OR HAYBALES	REMOVE

EROSION & SEDIMENT CONTROL NOTES:

1. REFER TO THE SPDES GENERAL PERMIT GP-0-10-001 COMPLIANCE NOTES FOR ADDITIONAL REQUIREMENTS.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IN STRICT COMPLIANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", AUGUST 2005 AND SUBSEQUENT REVISIONS.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS. SITE PREPARATION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISRUPTION. EXISTING VEGETATION SHALL BE PRESERVED AS MUCH AS IS PRACTICAL.
4. THE CONTRACTOR AND HIS/HER SUBCONTRACTOR(S) SHALL IDENTIFY THE TRAINED INDIVIDUAL THAT WILL BE RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
5. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.
6. DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION SHALL BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
7. EROSION AND SEDIMENT CONTROL INSPECTIONS:
   A. THE TRAINED INDIVIDUAL SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES ON A WEEKLY BASIS AND FOLLOWING EACH RAINFALL EVENT TO MEASURE PROPER PERFORMANCE. ANY SILTATION BUILDUP WILL BE CLEANED, AND SHIFTED HAY BALES WILL BE REINFORCED. ALL DAMAGES TO EROSION AND SEDIMENT CONTROLS SHALL BE REPAIRED EITHER AT THE BEGINNING OR AT THE END OF EACH WORKING DAY.
   B. THE QUALIFIED PROFESSIONAL SHALL CONDUCT SITE INSPECTIONS EVERY 7 DAYS DURING CONSTRUCTION. ANY DEFICIENCIES NOTED IN THE REPORTS SHALL BE CORRECTED IMMEDIATELY BY THE CONTRACTOR.
8. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED. THE CONTRACTOR IS TO SUPPLY ALL EQUIPMENT AND WATER.
9. EARTHWORK ACTIVITIES SHALL BE CONSISTENT WITH THE PHASING PLANS. THE EARTHWORK OPERATION AREAS SHALL BE STABILIZED ON AN ONGOING BASIS WITH NO AREAS, WHICH ARE NOT CURRENTLY UNDER CONSTRUCTION, LEFT WITHOUT AT LEAST TEMPORARY COVER FOR MORE THAN 48 HOURS.
10. STOCKPILED TOPSOIL SHALL BE TEMPORARILY SEEDED, MULCHED, AND ENCLOSED WITH SILT FENCING. ALL GRASS SEED WILL CONTAIN AT LEAST 25 PERCENT RAPID GERMINATING PERENNIAL RYE GRASS.
11. EROSIVE MATERIAL TEMPORARILY STOCKPILED ON THE SITE DURING THE CONSTRUCTION PROCESS SHALL BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND SHALL BE PROPERLY PROTECTED BY A SURROUNDING SILT FENCE BARRIER.
12. FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES IN ANY PORTION OF THE SITE, PERMANENT VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SOILS.
13. IF THE CONSTRUCTION PROCESS EXPOSES SIGNIFICANT SOIL AREAS FOR ANY LENGTH OF TIME, INCREASED POTENTIAL FOR EROSION AND DUST CREATION WILL OCCUR. THE CONTRACTOR SHALL PROVIDE, AT THE TOWN ENGINEERS AND/OR PROJECT ENGINEERS DIRECTION, SUPPLEMENTAL SURFACE TREATMENTS (SUCH AS SILT FENCE, TEMPORARY SWALES AND/OR RIP-RAP INTERCEPT POOLS, AND DUST CONTROL MEASURES) AS MAY BE REQUIRED.
14. IF CONSTRUCTION TAKES PLACE IN "WET SOILS", CURTAIN DRAINS OR SUBSURFACE DRAINAGE SHALL BE INSTALLED TO DEWATER THE SOILS.
15. ROAD SUBGRADE:
   A. DURING CONSTRUCTION, AS THE ROAD SUBGRADE IS FORMED BY EXCAVATION, DRAINAGE DITCHES WILL BE CUT ON THE DOWNHILL SIDE OF THE STREET AT INTERVALS OF FIFTY (50) FEET SO THAT RAINWATER FALLING ON EXPOSED SOILS WILL DRAIN OFF AT FREQUENT INTERVALS INTO THE UNDERBRUSH INSTEAD OF BEING ALLOWED TO ACCUMULATE AS IT TRAVELS DOWN TO A CENTRAL DISCHARGE POINT.
   B. DURING CONSTRUCTION, AS THE ROAD SUBGRADE IS FORMED BY FILL, WORK SHALL PROCEED QUICKLY AND THE SIDE SLOPES SEEDED WITH A QUICK GERMINATING RYE (10 TO 15 POUNDS PER 1000 SQUARE FEET). DURING THIS TIME ANY GULLIES OR WASHES THAT DEVELOP ARE TO BE FILLED AND THE SURFACE GRADED TO PREVENT WASH IN THE SAME LOCATION.
16. WHERE REQUIRED BY THE TOWN ENGINEER, SUBSURFACE DRAINAGE WILL BE PROVIDED TO INTERCEPT SEEPAGE THAT WOULD OTHERWISE ADVERSELY AFFECT SLOPE STABILITY OR CREATE EXCESSIVELY WET SITE CONDITIONS.
17. TEMPORARY DRAINAGE SWALES WITH A MINIMUM GRADE OF ONE (1) PERCENT SHALL BE INSTALLED TO DIRECT RUNOFF AWAY FROM EXCAVATED AREAS. SWALES SHALL BE INSTALLED WITH STAKED AND SECURED HAY BALE BERMS TO PREVENT DOWNSTREAM SILTATION. LOCATION OF THE DRAINAGE SWALES AND HAY BALES WILL BE AT THE DIRECTION OF THE TOWN ENGINEER. SILT FENCE SHALL BE PROPERLY INSTALLED DOWN GRADE OF ALL DISTURBED AREAS. SILT FENCE SHALL BE INSTALLED ALONG CONTOURS TO FILTER SEDIMENT FROM RUNOFF. INSPECTION SHOULD BE FREQUENT AND REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED. SILT FENCE SHOULD BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
18. REVERSE SLOPE BENCHES OF DIVERSION SWALES SHALL BE PROVIDED WHEREVER THE VERTICAL HEIGHT OF ANY 2:1 SLOPE EXCEEDS TWENTY (20) FEET; THIRTY (30) FEET FOR SLOPES OF 3:1; AND FORTY (40) FEET FOR SLOPES OF 4:1. BENCHES OR SWALES WILL BE LOCATED TO DIVIDE THE SLOPE FACE INTO EQUAL SECTIONS TO CONVEY RUNOFF TO STABLE OUTLETS. BENCHES WILL BE A MINIMUM OF SIX FEET WIDE TO PROVIDE FOR MAINTENANCE. BENCHES WILL BE DESIGNED WITH A REVERSE SLOPE OF NOT MORE THAN 6:1. BENCH GRADIENT TO THE OUTLET WILL BE BETWEEN TWO AND THREE PERCENT. THE FLOW LENGTH OF ANY BENCH OR SWALE WILL NOT EXCEED 800 FEET.
19. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WHEN ALL DISTURBED AREAS HAVE UNDERGONE FINAL STABILIZATION AND WHEN UPGRADIENT SURFACES ARE PROPERLY STABILIZED AND ALL STORMWATER MANAGEMENT SYSTEMS ARE IN PLACE AND OPERABLE. ALL AREAS DISTURBED BY THE REMOVAL OF THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE FILLED IN, TOPSOILED, SEEDED, AND MULCHED.

STORMWATER INSPECTION AND MAINTENANCE NOTES:

1. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR ALL INSPECTIONS AND MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES/BASINS UNTIL SUCH TIME THE TOWN OF WAPPINGER TAKES OWNERSHIP OF THE ROADS AND EASEMENTS FOR ALL UTILITIES INCLUDING STORMWATER MANAGEMENT FACILITIES.
2. THE OWNERS DESIGNATED PROFESSIONALS SHALL PERFORM ALL INSPECTIONS AND PREPARE ALL NECESSARY REPORTS TO THE SATISFACTION OF THE TOWN ENGINEER AND TOWN HIGHWAY SUPERINTENDENT. ALL INSPECTIONS SHALL BE CONDUCTED IN ACCORDANCE WITH THIS PLAN AND PROCEDURES OUTLINED IN APPENDIX G OF THE LATEST REVISION OF THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL. MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE INSPECTION REPORTS, THE SUBDIVISION PLANS, AND THE STORMWATER MAINTENANCE TABLE BELOW. ANY ADJUSTMENTS OR MODIFICATIONS SHALL BE NOTED IN THE INSPECTION REPORTS AND SUBMITTED TO THE TOWN HIGHWAY SUPERINTENDENT FOR ACCEPTANCE.
3. THE HOMEOWNER'S ASSOCIATION (HOA) SHALL BE RESPONSIBLE FOR ANY INSPECTIONS AND MAINTENANCE. THE HOA SHALL INSPECT AND MAINTAIN ALL STORMWATER MANAGEMENT FACILITIES IN ACCORDANCE WITH THE MAP, PLAN AND REPORT PREPARED FOR THE HILLTOP VILLAGE AT WAPPINGER RESIDENTIAL DEVELOPMENT.
4. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR ALL INSPECTIONS AND MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES/BASINS INCLUDING ALL INSPECTIONS, MAINTENANCE AND NECESSARY REPLACEMENT OF ALL PLANTINGS WITHIN ALL STORMWATER MANAGEMENT FACILITIES/BASINS FOR A PERIOD OF 5 YEARS COMMENCING ON THE DATE OF COMPLETION AND ACCEPTANCE BY THE TOWN PLANNER. THE OWNER/DEVELOPER SHALL NOTIFY THE TOWN HIGHWAY SUPERINTENDENT, TOWN ENGINEER AND TOWN PLANNING CONSULTANTS UPON COMPLETION OF PLANTINGS FOR AN INSPECTION AND WRITTEN ACCEPTANCE FROM THE TOWN HIGHWAY SUPERINTENDENT OR ZONING ADMINISTRATOR.
5. A MINIMUM OF 50% OF CONSTRUCTION UPGRADIENT OF STORMWATER BASINS MUST BE COMPLETE AND STABILIZED PRIOR TO INSTALLATION OF PLANTS IN STORMWATER BASINS.
6. 100% OF ALL CONSTRUCTION UPGRADIENT OF STORMWATER FOREBAYS MUST BE COMPLETE AND STABILIZED PRIOR TO INSTALLATION OF PLANTS IN STORMWATER FOREBAY AREAS.
7. ALL PLANTING INSPECTIONS AND MAINTENANCE SHALL BE PERFORMED AS PER THE STORMWATER MAINTENANCE TABLE LISTED BELOW. AN INSPECTION REPORT SHALL BE PREPARED BY THE OWNER/DEVELOPER'S DESIGNATED PROFESSIONAL AND SUBMITTED TO THE OWNER/DEVELOPER FOR HIS RECORDS. THE OWNER/DEVELOPER SHALL PROVIDE THE TOWN OF WAPPINGER ZONING ADMINISTRATOR AND/OR TOWN HIGHWAY SUPERINTENDENT WITH A COPY OF SUCH REPORTS UPON REQUEST. THE OWNER WILL BE RESPONSIBLE FOR ALL EXPENSES NECESSARY FOR INSPECTIONS AND MAINTENANCE OF STORMWATER MANAGEMENT FACILITY PLANTINGS. ANY ADJUSTMENTS OR MODIFICATIONS SHALL BE NOTED IN THE INSPECTION REPORTS AND SUBMITTED TO THE TOWN HIGHWAY SUPERINTENDENT FOR ACCEPTANCE.

CONSTRUCTION SEQUENCING NOTES:

GENERAL NOTES FOR ALL PHASES:

1. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES, PRIOR WRITTEN AUTHORIZATION TO DISTURB MORE THAN FIVE (5) ACRES SHALL BE OBTAINED FROM EITHER THE NYSDEC OR THE TOWN OF WAPPINGER.
2. THE CONTRACTOR SHALL FLAG ALL DISTURBANCE LIMITS OF EACH PHASE. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (E.G., STABILIZED CONSTRUCTION ENTRANCES, SILT FENCING, STORM DRAIN INLET PROTECTION, ETC) FOR THE PHASE SHALL BE INSTALLED AS SHOWN ON THE PROJECT PLANS. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THEIR TRIBUTARY AREAS.
3. THE STORMWATER MANAGEMENT FACILITIES SHALL BE USED AS TEMPORARY SEDIMENT BASINS DURING CONSTRUCTION.
4. CONSTRUCTION ACTIVITIES SHALL COMMENCE AFTER THE PRE-CONSTRUCTION SITE ASSESSMENT HAS BEEN COMPLETED BY THE QUALIFIED PROFESSIONAL AND ALL EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN DETERMINED TO BE FUNCTIONAL. A PRE-CONSTRUCTION SITE ASSESSMENT SHALL BE COMPLETED FOR EACH PHASE.

PHASE 1 (12.16 ACRES):

1. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PHASE 1 DISTURBANCE LIMITS.
2. STAKE OUT THE LOCATIONS OF THE PROPOSED STORMWATER MANAGEMENT FACILITIES AND IMPROVEMENTS (E.G., ROADWAYS, PARKING AREA, MODEL UNITS (S1, S28-29, S132, AND T1-2), CLUB HOUSE, ETC).
3. REMOVE TREES, STUMPS, AND VEGETATION WITHIN THE DISTURBANCE LIMITS IN ACCORDANCE WITH THE PROJECT PLANS.
4. ROUGH GRADE ROAD ñÀò PLACE SURPLUS MATERIAL IN THE TEMPORARY SOIL STOCKPILE LOCATIONS SHOWN ON THE PROJECT PLANS.
5. CLEAR AND GRUB THE STORMWATER MANAGEMENT PONDS AREAS. INSTALL THE OUTLET CONTROL STRUCTURE AND EARTHEN BERM. THE TEMPORARY SEDIMENT BASINS SHALL BE GRADED TO THE TOP OF THE AQUATIC BENCH. COVER THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE WITH AMOCO TYPE 4545 OR EQUAL CONSTRUCTION FABRIC TO PREVENT FINES FROM ENTERING THE STORMWATER DISCHARGES FROM THE TEMPORARY SEDIMENT BASIN. INSTALL INLET AND OUTLET PROTECTION MEASURES (I.E., RIP-RAP OVERFLOW WEIR(S), CULVERT INLET/OUTLET PROTECTION, ETC) AND STABILIZE THE AREAS DISTURBED DURING THE CONSTRUCTION OF THE TEMPORARY SEDIMENT BASIN.
6. INSTALL TEMPORARY DIVERSION MEASURES AND STABILIZATION MEASURES (E.G., VEGETATIVE COVER, RIP-RAP, ETC) TO ENSURE THAT STORMWATER RUNOFF IS CONVEYED TO THE TEMPORARY SEDIMENT BASIN. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ENSURE THAT THE TRIBUTARY AREA TO EACH DIVERSION MEASURE SHALL NOT EXCEED FIVE (5) ACRES.
7. ROUGH GRADE THE REMAINING ROADS AND SITE WITHIN THE DISTURBANCE LIMITS.
8. CONSTRUCT ALL SITE UTILITIES AND UTILITY SERVICE CONNECTIONS AS SHOWN ON THE PROJECT PLANS. INSTALL INLET PROTECTION MEASURES AT ALL INLETS AND AT THE ENDS OF ALL EXPOSED STORMWATER PIPES AND INSTALL RIP-RAP AT THE LOCATIONS SHOWN ON THE PROJECT PLANS.
9. DELIVER BUILDING MATERIALS TO DESIGNATED STAGING AREAS FOR MODEL UNITS AND CLUB HOUSE CONSTRUCTION.
10. INSTALL PROPOSED CURBING AND SIDEWALKS.
11. PREPARE PAVEMENT SUBGRADE AND INSTALL SUBBASE MATERIAL. INLET PROTECTION MEASURES MAY BE REMOVED TEMPORARILY DURING THIS OPERATION, BUT NO MORE THAN 24 HOURS PRIOR TO PLACEMENT OF THE SUBBASE MATERIAL. INLET PROTECTION MEASURES SHALL BE REPLACED ONCE THE SUBBASE MATERIAL HAS BEEN INSTALLED.
12. FINISH GRADING AND STABILIZE ALL DISTURBED AREAS. THE CONTRACTOR SHALL CLEAN ALL CATCH BASINS, MANHOLES, AND DRAINAGE LINES OF ANY ACCUMULATED SILT AND SEDIMENT PRIOR FINALIZING THE STORMWATER MANAGEMENT PONDS.
13. FINALIZE CONSTRUCTION OF THE STORMWATER MANAGEMENT PONDS UPON COMPLETION OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE STORMWATER MANAGEMENT PONDS AND FINISH GRADE THE FOREBAY(S), AQUATIC BENCH, AND WET POOL. THE CONTRACTOR SHALL INSTALL ALL PLANTINGS IN ACCORDANCE WITH THE PROJECT PLANS.
14. REMOVE THE CONSTRUCTION FABRIC FROM THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE ONCE PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL DISTURBED AREAS OF THE SITE.
15. PLACE PAVEMENT TOP COURSE AND PAVEMENT MARKINGS.
16. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. IMMEDIATELY STABILIZE THE AREAS DISTURBED DURING THEIR REMOVAL. ESTABLISH PERMANENT VEGETATIVE COVER AND INSTALL ALL LANDSCAPING.

PHASE 2 (14.99 ACRES):

1. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PHASE 2 DISTURBANCE LIMITS.
2. STAKE OUT THE LOCATIONS OF THE PROPOSED STORMWATER MANAGEMENT FACILITY AND IMPROVEMENTS (E.G., ROADWAYS, HOMES (S15-27, S30-34S, S89-92, AND T3-18), ETC).
3. REMOVE TREES, STUMPS, AND VEGETATION WITHIN THE DISTURBANCE LIMITS IN ACCORDANCE WITH THE PROJECT PLANS.
4. ROUGH GRADE ROADS AND SITE. PLACE SURPLUS MATERIAL IN THE TEMPORARY SOIL STOCKPILE LOCATIONS SHOWN ON THE PROJECT PLANS.
5. CLEAR AND GRUB THE STORMWATER MANAGEMENT POND 3 AREA. INSTALL THE OUTLET CONTROL STRUCTURE AND EARTHEN BERM. THE TEMPORARY SEDIMENT BASINS SHALL BE GRADED TO THE TOP OF THE AQUATIC BENCH. COVER THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE WITH AMOCO TYPE 4545 OR EQUAL CONSTRUCTION FABRIC TO PREVENT FINES FROM ENTERING THE STORMWATER DISCHARGES FROM THE TEMPORARY SEDIMENT BASIN. INSTALL INLET AND OUTLET PROTECTION MEASURES (I.E., RIP-RAP OVERFLOW WEIR(S), CULVERT INLET/OUTLET PROTECTION, ETC) AND STABILIZE THE AREAS DISTURBED DURING THE CONSTRUCTION OF THE TEMPORARY SEDIMENT BASIN.
6. INSTALL TEMPORARY DIVERSION MEASURES AND STABILIZATION MEASURES (E.G., VEGETATIVE COVER, RIP-RAP, ETC) TO ENSURE THAT STORMWATER RUNOFF IS CONVEYED TO THE TEMPORARY SEDIMENT BASIN. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ENSURE THAT THE TRIBUTARY AREA TO EACH DIVERSION MEASURE SHALL NOT EXCEED FIVE (5) ACRES.
7. CONSTRUCT ALL SITE UTILITIES AND UTILITY SERVICE CONNECTIONS AS SHOWN ON THE PROJECT PLANS. INSTALL INLET PROTECTION MEASURES AT ALL INLETS AND AT THE ENDS OF ALL EXPOSED STORMWATER PIPES AND INSTALL RIP-RAP AT THE LOCATIONS SHOWN ON THE PROJECT PLANS.
8. DELIVER BUILDING MATERIALS TO DESIGNATED STAGING AREAS FOR THE MODEL UNIT AND CLUB HOUSE CONSTRUCTION.
9. INSTALL PROPOSED CURBING AND SIDEWALKS.
10. PREPARE PAVEMENT SUBGRADE AND INSTALL SUBBASE MATERIAL. INLET PROTECTION MEASURES MAY BE REMOVED TEMPORARILY DURING THIS OPERATION, BUT NO MORE THAN 24 HOURS PRIOR TO PLACEMENT OF THE SUBBASE MATERIAL. INLET PROTECTION MEASURES SHALL BE REPLACED ONCE THE SUBBASE MATERIAL HAS BEEN INSTALLED.
11. FINISH GRADING AND STABILIZE ALL DISTURBED AREAS. THE CONTRACTOR SHALL CLEAN ALL CATCH BASINS, MANHOLES, AND DRAINAGE LINES OF ANY ACCUMULATED SILT AND SEDIMENT PRIOR FINALIZING THE STORMWATER MANAGEMENT POND.
12. FINALIZE CONSTRUCTION OF THE STORMWATER MANAGEMENT POND UPON COMPLETION OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE STORMWATER MANAGEMENT POND AND FINISH GRADE THE FOREBAY(S), AQUATIC BENCH, AND WET POOL. THE CONTRACTOR SHALL INSTALL ALL PLANTINGS IN ACCORDANCE WITH THE PROJECT PLANS.
13. REMOVE THE CONSTRUCTION FABRIC FROM THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE ONCE PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL DISTURBED AREAS OF THE SITE.
14. PLACE PAVEMENT TOP COURSE AND PAVEMENT MARKINGS.
15. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. IMMEDIATELY STABILIZE THE AREAS DISTURBED DURING THEIR REMOVAL. ESTABLISH PERMANENT VEGETATIVE COVER AND INSTALL ALL LANDSCAPING.

PHASE 3 (14.97 ACRES):

1. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PHASE 3 DISTURBANCE LIMITS.
2. STAKE OUT THE LOCATIONS OF THE PROPOSED STORMWATER MANAGEMENT FACILITY AND IMPROVEMENTS (E.G., ROADWAYS, HOMES (S2-5, S93-99, S129-131, AND T19-53), ETC).
3. REMOVE TREES, STUMPS, AND VEGETATION WITHIN THE DISTURBANCE LIMITS IN ACCORDANCE WITH THE PROJECT PLANS.
4. ROUGH GRADE ROADS AND SITE. PLACE SURPLUS MATERIAL IN THE TEMPORARY SOIL STOCKPILE LOCATIONS SHOWN ON THE PROJECT PLANS.
5. CLEAR AND GRUB THE BIORETENTION AREA 2. INSTALL THE OUTLET CONTROL STRUCTURE AND EARTHEN BERM. THE TEMPORARY SEDIMENT BASINS SHALL BE GRADED IN ACCORDANCE WITH THE PROJECT PLANS. COVER THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE WITH AMOCO TYPE 4545 OR EQUAL CONSTRUCTION FABRIC TO PREVENT FINES FROM ENTERING THE STORMWATER DISCHARGES FROM THE TEMPORARY SEDIMENT BASIN. INSTALL INLET AND OUTLET PROTECTION MEASURES (I.E., RIP-RAP OVERFLOW WEIR(S), CULVERT INLET/OUTLET PROTECTION, ETC) AND STABILIZE THE AREAS DISTURBED DURING THE CONSTRUCTION OF THE TEMPORARY SEDIMENT BASIN.
6. INSTALL TEMPORARY DIVERSION MEASURES AND STABILIZATION MEASURES (E.G., VEGETATIVE COVER, RIP-RAP, ETC) TO ENSURE THAT STORMWATER RUNOFF IS CONVEYED TO THE TEMPORARY SEDIMENT BASIN. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ENSURE THAT THE TRIBUTARY AREA TO EACH DIVERSION MEASURE SHALL NOT EXCEED FIVE (5) ACRES.
7. CONSTRUCT ALL SITE UTILITIES AND UTILITY SERVICE CONNECTIONS AS SHOWN ON THE PROJECT PLANS. INSTALL INLET PROTECTION MEASURES AT ALL INLETS AND AT THE ENDS OF ALL EXPOSED STORMWATER PIPES AND INSTALL RIP-RAP AT THE LOCATIONS SHOWN ON THE PROJECT PLANS.
8. DELIVER BUILDING MATERIALS TO DESIGNATED STAGING AREAS FOR THE HOME CONSTRUCTION.
9. INSTALL PROPOSED CURBING AND SIDEWALKS.
10. PREPARE PAVEMENT SUBGRADE AND INSTALL SUBBASE MATERIAL. INLET PROTECTION MEASURES MAY BE REMOVED TEMPORARILY DURING THIS OPERATION, BUT NO MORE THAN 24 HOURS PRIOR TO PLACEMENT OF THE SUBBASE MATERIAL. INLET PROTECTION MEASURES SHALL BE REPLACED ONCE THE SUBBASE MATERIAL HAS BEEN INSTALLED.
11. FINISH GRADING AND STABILIZE ALL DISTURBED AREAS. THE CONTRACTOR SHALL CLEAN ALL CATCH BASINS, MANHOLES, AND DRAINAGE LINES OF ANY ACCUMULATED SILT AND SEDIMENT PRIOR FINALIZING THE BIORETENTION AREA.
12. FINALIZE CONSTRUCTION OF THE BIORETENTION AREA UPON COMPLETION OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE BIORETENTION AREA AND FINISH GRADE. THE CONTRACTOR SHALL INSTALL ALL PLANTINGS IN ACCORDANCE WITH THE PROJECT PLANS.
13. REMOVE THE CONSTRUCTION FABRIC FROM THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE ONCE PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL DISTURBED AREAS OF THE SITE.
14. PLACE PAVEMENT TOP COURSE AND PAVEMENT MARKINGS.
15. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. IMMEDIATELY STABILIZE THE AREAS DISTURBED DURING THEIR REMOVAL. ESTABLISH PERMANENT VEGETATIVE COVER AND INSTALL ALL LANDSCAPING.

PHASE 4 (8.34 ACRES):

1. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PHASE 4 DISTURBANCE LIMITS.
2. STAKE OUT THE LOCATIONS OF THE PROPOSED STORMWATER MANAGEMENT FACILITY AND IMPROVEMENTS (E.G., ROADWAYS, HOMES (S74-84 AND S100-111), ETC).
3. REMOVE TREES, STUMPS, AND VEGETATION WITHIN THE DISTURBANCE LIMITS IN ACCORDANCE WITH THE PROJECT PLANS.
4. ROUGH GRADE ROADS AND SITE. PLACE SURPLUS MATERIAL IN THE TEMPORARY SOIL STOCKPILE LOCATIONS SHOWN ON THE PROJECT PLANS.
5. CLEAR AND GRUB THE STORMWATER MANAGEMENT POND 4 AREA. INSTALL THE OUTLET CONTROL STRUCTURE AND EARTHEN BERM. THE TEMPORARY SEDIMENT BASINS SHALL BE GRADED TO THE TOP OF THE AQUATIC BENCH. COVER THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE WITH AMOCO TYPE 4545 OR EQUAL CONSTRUCTION FABRIC TO PREVENT FINES FROM ENTERING THE STORMWATER DISCHARGES FROM THE TEMPORARY SEDIMENT BASIN. INSTALL INLET AND OUTLET PROTECTION MEASURES (I.E., RIP-RAP OVERFLOW WEIR(S), CULVERT INLET/OUTLET PROTECTION, ETC) AND STABILIZE THE AREAS DISTURBED DURING THE CONSTRUCTION OF THE TEMPORARY SEDIMENT BASIN.
6. INSTALL TEMPORARY DIVERSION MEASURES AND STABILIZATION MEASURES (E.G., VEGETATIVE COVER, RIP-RAP, ETC) TO ENSURE THAT STORMWATER RUNOFF IS CONVEYED TO THE TEMPORARY SEDIMENT BASIN. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ENSURE THAT THE TRIBUTARY AREA TO EACH DIVERSION MEASURE SHALL NOT EXCEED FIVE (5) ACRES.
7. CONSTRUCT ALL SITE UTILITIES AND UTILITY SERVICE CONNECTIONS AS SHOWN ON THE PROJECT PLANS. INSTALL INLET PROTECTION MEASURES AT ALL INLETS AND AT THE ENDS OF ALL EXPOSED STORMWATER PIPES AND INSTALL RIP-RAP AT THE LOCATIONS SHOWN ON THE PROJECT PLANS.
8. DELIVER BUILDING MATERIALS TO DESIGNATED STAGING AREAS FOR THE MODEL UNIT AND CLUB HOUSE CONSTRUCTION.
9. INSTALL PROPOSED CURBING AND SIDEWALKS.
10. PREPARE PAVEMENT SUBGRADE AND INSTALL SUBBASE MATERIAL. INLET PROTECTION MEASURES MAY BE REMOVED TEMPORARILY DURING THIS OPERATION, BUT NO MORE THAN 24 HOURS PRIOR TO PLACEMENT OF THE SUBBASE MATERIAL. INLET PROTECTION MEASURES SHALL BE REPLACED ONCE THE SUBBASE MATERIAL HAS BEEN INSTALLED.
11. FINISH GRADING AND STABILIZE ALL DISTURBED AREAS. THE CONTRACTOR SHALL CLEAN ALL CATCH BASINS, MANHOLES, AND DRAINAGE LINES OF ANY ACCUMULATED SILT AND SEDIMENT PRIOR FINALIZING THE STORMWATER MANAGEMENT POND.
12. FINALIZE CONSTRUCTION OF THE STORMWATER MANAGEMENT POND UPON COMPLETION OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE STORMWATER MANAGEMENT POND AND FINISH GRADE THE FOREBAY(S), AQUATIC BENCH, AND WET POOL. THE CONTRACTOR SHALL INSTALL ALL PLANTINGS IN ACCORDANCE WITH THE PROJECT PLANS.
13. REMOVE THE CONSTRUCTION FABRIC FROM THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE ONCE PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL DISTURBED AREAS OF THE SITE.
14. PLACE PAVEMENT TOP COURSE AND PAVEMENT MARKINGS.
15. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. STABILIZE ANY DISTURBED AREAS AS A RESULT OF THE REMOVAL OF THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND INSTALL ALL LANDSCAPING.

PHASE 5 (9.29 ACRES):

1. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PHASE 5 DISTURBANCE LIMITS.
2. STAKE OUT THE LOCATIONS OF THE PROPOSED STORMWATER MANAGEMENT FACILITY AND IMPROVEMENTS (E.G., ROADWAYS, HOMES (S6-14, S35-46, S55-62, AND S85-88), ETC).
3. REMOVE TREES, STUMPS, AND VEGETATION WITHIN THE DISTURBANCE LIMITS IN ACCORDANCE WITH THE PROJECT PLANS.
4. ROUGH GRADE ROADS AND SITE. PLACE SURPLUS MATERIAL IN THE TEMPORARY SOIL STOCKPILE LOCATIONS SHOWN ON THE PROJECT PLANS.
5. INSTALL TEMPORARY DIVERSION MEASURES AND STABILIZATION MEASURES (E.G., VEGETATIVE COVER, RIP-RAP, ETC) TO ENSURE THAT STORMWATER RUNOFF IS CONVEYED TO THE TEMPORARY SEDIMENT BASIN. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ENSURE THAT THE TRIBUTARY AREA TO EACH DIVERSION MEASURE SHALL NOT EXCEED FIVE (5) ACRES.
6. CONSTRUCT ALL SITE UTILITIES AND UTILITY SERVICE CONNECTIONS AS SHOWN ON THE PROJECT PLANS. INSTALL INLET PROTECTION MEASURES AT ALL INLETS AND AT THE ENDS OF ALL EXPOSED STORMWATER PIPES AND INSTALL RIP-RAP AT THE LOCATIONS SHOWN ON THE PROJECT PLANS.
7. DELIVER BUILDING MATERIALS TO DESIGNATED STAGING AREAS FOR THE HOMES CONSTRUCTION.
8. INSTALL PROPOSED CURBING AND SIDEWALKS.
9. PREPARE PAVEMENT SUBGRADE AND INSTALL SUBBASE MATERIAL. INLET PROTECTION MEASURES MAY BE REMOVED TEMPORARILY DURING THIS OPERATION, BUT NO MORE THAN 24 HOURS PRIOR TO PLACEMENT OF THE SUBBASE MATERIAL. INLET PROTECTION MEASURES SHALL BE REPLACED ONCE THE SUBBASE MATERIAL HAS BEEN INSTALLED.
10. FINISH GRADING AND STABILIZE ALL DISTURBED AREAS. THE CONTRACTOR SHALL CLEAN ALL CATCH BASINS, MANHOLES, AND DRAINAGE LINES OF ANY ACCUMULATED SILT AND SEDIMENT.
11. PLACE PAVEMENT TOP COURSE AND PAVEMENT MARKINGS.
12. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. IMMEDIATELY STABILIZE THE AREAS DISTURBED DURING THEIR REMOVAL. ESTABLISH PERMANENT VEGETATIVE COVER AND INSTALL ALL LANDSCAPING.

PHASE 6 (10.51 ACRES):

1. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PHASE 6 DISTURBANCE LIMITS.
2. STAKE OUT THE LOCATIONS OF THE PROPOSED STORMWATER MANAGEMENT FACILITY AND IMPROVEMENTS (E.G., ROADWAYS, HOMES (S47-54, S63-S73, AND S112-128), ETC).
3. REMOVE TREES, STUMPS, AND VEGETATION WITHIN THE DISTURBANCE LIMITS IN ACCORDANCE WITH THE PROJECT PLANS.
4. ROUGH GRADE ROADS AND SITE. PLACE SURPLUS MATERIAL IN THE TEMPORARY SOIL STOCKPILE LOCATIONS SHOWN ON THE PROJECT PLANS.
5. CLEAR AND GRUB THE STORMWATER MANAGEMENT POND 5 AREA. INSTALL THE OUTLET CONTROL STRUCTURE AND EARTHEN BERM. THE TEMPORARY SEDIMENT BASINS SHALL BE GRADED TO THE TOP OF THE AQUATIC BENCH. COVER THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE WITH AMOCO TYPE 4545 OR EQUAL CONSTRUCTION FABRIC TO PREVENT FINES FROM ENTERING THE STORMWATER DISCHARGES FROM THE TEMPORARY SEDIMENT BASIN. INSTALL INLET AND OUTLET PROTECTION MEASURES (I.E., RIP-RAP OVERFLOW WEIR(S), CULVERT INLET/OUTLET PROTECTION, ETC) AND STABILIZE THE AREAS DISTURBED DURING THE CONSTRUCTION OF THE TEMPORARY SEDIMENT BASIN.
6. INSTALL TEMPORARY DIVERSION MEASURES AND STABILIZATION MEASURES (E.G., VEGETATIVE COVER, RIP-RAP, ETC) TO ENSURE THAT STORMWATER RUNOFF IS CONVEYED TO THE TEMPORARY SEDIMENT BASIN. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ENSURE THAT THE TRIBUTARY AREA TO EACH DIVERSION MEASURE SHALL NOT EXCEED FIVE (5) ACRES.
7. CONSTRUCT ALL SITE UTILITIES AND UTILITY SERVICE CONNECTIONS AS SHOWN ON THE PROJECT PLANS. INSTALL INLET PROTECTION MEASURES AT ALL INLETS AND AT THE ENDS OF ALL EXPOSED STORMWATER PIPES AND INSTALL RIP-RAP AT THE LOCATIONS SHOWN ON THE PROJECT PLANS.
8. DELIVER BUILDING MATERIALS TO DESIGNATED STAGING AREAS FOR THE MODEL UNIT AND CLUB HOUSE CONSTRUCTION.
9. INSTALL PROPOSED CURBING AND SIDEWALKS.
10. PREPARE PAVEMENT SUBGRADE AND INSTALL SUBBASE MATERIAL. INLET PROTECTION MEASURES MAY BE REMOVED TEMPORARILY DURING THIS OPERATION, BUT NO MORE THAN 24 HOURS PRIOR TO PLACEMENT OF THE SUBBASE MATERIAL. INLET PROTECTION MEASURES SHALL BE REPLACED ONCE THE SUBBASE MATERIAL HAS BEEN INSTALLED.
11. FINISH GRADING AND STABILIZE ALL DISTURBED AREAS. THE CONTRACTOR SHALL CLEAN ALL CATCH BASINS, MANHOLES, AND DRAINAGE LINES OF ANY ACCUMULATED SILT AND SEDIMENT PRIOR FINALIZING THE STORMWATER MANAGEMENT POND.
12. FINALIZE CONSTRUCTION OF THE STORMWATER MANAGEMENT POND UPON COMPLETION OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE STORMWATER MANAGEMENT POND AND FINISH GRADE THE FOREBAY(S), AQUATIC BENCH, AND WET POOL. THE CONTRACTOR SHALL INSTALL ALL PLANTINGS IN ACCORDANCE WITH THE PROJECT PLANS.
13. REMOVE THE CONSTRUCTION FABRIC FROM THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE ONCE PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL DISTURBED AREAS OF THE SITE.
14. PLACE PAVEMENT TOP COURSE AND PAVEMENT MARKINGS.
15. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. IMMEDIATELY STABILIZE THE AREAS DISTURBED DURING THEIR REMOVAL. ESTABLISH PERMANENT VEGETATIVE COVER AND INSTALL ALL LANDSCAPING.

PHASE 7 (7.54 ACRES):

1. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PHASE 7 DISTURBANCE LIMITS.
2. STAKE OUT THE LOCATIONS OF THE PROPOSED STORMWATER MANAGEMENT FACILITIES AND IMPROVEMENTS (E.G., ROADWAYS, HOMES T54 THROUGH T93, ETC).
3. REMOVE TREES, STUMPS, AND VEGETATION WITHIN THE DISTURBANCE LIMITS IN ACCORDANCE WITH THE PROJECT PLANS.
4. ROUGH GRADE ROAD ñBòAND PLACE SURPLUS MATERIAL IN THE TEMPORARY SOIL STOCKPILE LOCATIONS SHOWN ON THE PROJECT PLANS.
5. CLEAR AND GRUB THE BIORETENTION AREA 1. INSTALL THE OUTLET CONTROL STRUCTURE AND EARTHEN BERM. THE TEMPORARY SEDIMENT BASINS SHALL BE GRADED IN ACCORDANCE WITH THE PROJECT PLANS. COVER THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE WITH AMOCO TYPE 4545 OR EQUAL CONSTRUCTION FABRIC TO PREVENT FINES FROM ENTERING THE STORMWATER DISCHARGES FROM THE TEMPORARY SEDIMENT BASIN. INSTALL INLET AND OUTLET PROTECTION MEASURES (I.E., RIP-RAP OVERFLOW WEIR(S), CULVERT INLET/OUTLET PROTECTION, ETC) AND STABILIZE THE AREAS DISTURBED DURING THE CONSTRUCTION OF THE TEMPORARY SEDIMENT BASIN.
6. INSTALL TEMPORARY DIVERSION MEASURES AND STABILIZATION MEASURES (E.G., VEGETATIVE COVER, RIP-RAP, ETC) TO ENSURE THAT STORMWATER RUNOFF IS CONVEYED TO THE TEMPORARY SEDIMENT BASIN. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ENSURE THAT THE TRIBUTARY AREA TO EACH DIVERSION MEASURE SHALL NOT EXCEED FIVE (5) ACRES.
7. CONSTRUCT ALL SITE UTILITIES AND UTILITY SERVICE CONNECTIONS AS SHOWN ON THE PROJECT PLANS. INSTALL INLET PROTECTION MEASURES AT ALL INLETS AND AT THE ENDS OF ALL EXPOSED STORMWATER PIPES AND INSTALL RIP-RAP AT THE LOCATIONS SHOWN ON THE PROJECT PLANS.
8. DELIVER BUILDING MATERIALS TO DESIGNATED STAGING AREAS FOR THE HOME CONSTRUCTION.
9. INSTALL PROPOSED CURBING AND SIDEWALKS.
10. PREPARE PAVEMENT SUBGRADE AND INSTALL SUBBASE MATERIAL. INLET PROTECTION MEASURES MAY BE REMOVED TEMPORARILY DURING THIS OPERATION, BUT NO MORE THAN 24 HOURS PRIOR TO PLACEMENT OF THE SUBBASE MATERIAL. INLET PROTECTION MEASURES SHALL BE REPLACED ONCE THE SUBBASE MATERIAL HAS BEEN INSTALLED.
11. FINISH GRADING AND STABILIZE ALL DISTURBED AREAS. THE CONTRACTOR SHALL CLEAN ALL CATCH BASINS, MANHOLES, AND DRAINAGE LINES OF ANY ACCUMULATED SILT AND SEDIMENT PRIOR FINALIZING THE BIORETENTION AREA.
12. FINALIZE CONSTRUCTION OF THE BIORETENTION AREA UPON COMPLETION OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE BIORETENTION AREA AND FINISH GRADE. THE CONTRACTOR SHALL INSTALL ALL PLANTINGS IN ACCORDANCE WITH THE PROJECT PLANS.
13. REMOVE THE CONSTRUCTION FABRIC FROM THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE ONCE PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL DISTURBED AREAS OF THE SITE.
14. PLACE PAVEMENT TOP COURSE AND PAVEMENT MARKINGS.
15. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. IMMEDIATELY STABILIZE THE AREAS DISTURBED DURING THEIR REMOVAL. ESTABLISH PERMANENT VEGETATIVE COVER AND INSTALL ALL LANDSCAPING.

REVISIONS	
DATE:	DESCRIPTION:

POVALL ENGINEERING, PLLC

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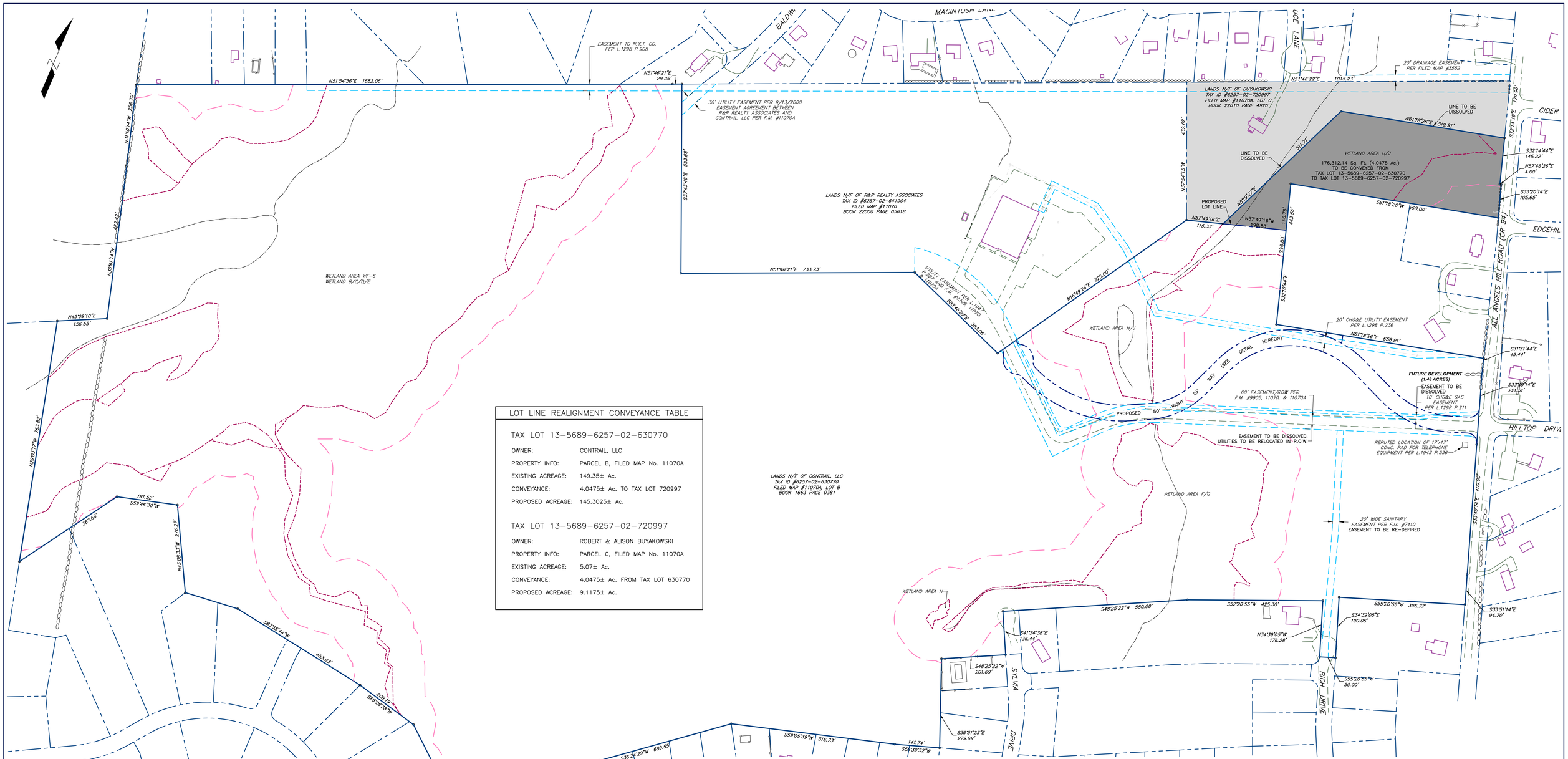
HILLTOP VILLAGE AT WAPPINGER

GENERAL NOTES

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: AS SHOWN



SCALE: 1"=120'

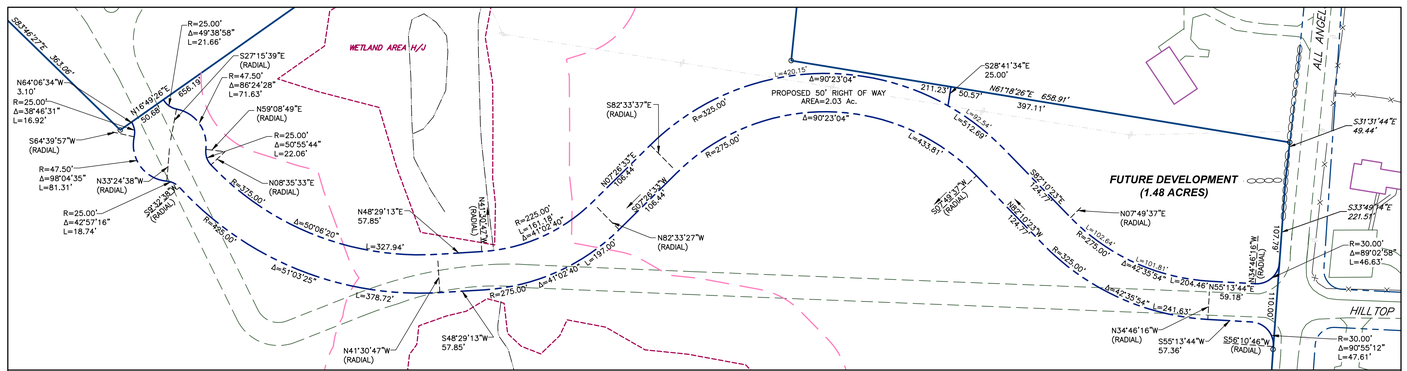
LOT LINE REALIGNMENT CONVEYANCE TABLE

TAX LOT 13-5689-6257-02-630770

OWNER:	CONTRAIL, LLC
PROPERTY INFO:	PARCEL B, FILED MAP No. 11070A
EXISTING ACREAGE:	149.35± Ac.
CONVEYANCE:	4.0475± Ac. TO TAX LOT 720997
PROPOSED ACREAGE:	145.3025± Ac.

TAX LOT 13-5689-6257-02-720997

OWNER:	ROBERT & ALISON BUYAKOWSKI
PROPERTY INFO:	PARCEL C, FILED MAP No. 11070A
EXISTING ACREAGE:	5.07± Ac.
CONVEYANCE:	4.0475± Ac. FROM TAX LOT 630770
PROPOSED ACREAGE:	9.1175± Ac.



PROPOSED 50' RIGHT OF WAY DETAIL

SCALE: 1"=80'

REVISIONS	
DATE:	DESCRIPTION:

LEGEND

- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- EXISTING OVERHEAD WIRE & UTILITY POLE
- EXISTING STONE WALL
- EXISTING PAVEMENT
- EXISTING STREAM
- EXISTING FENCE
- PROPOSED LOT LINE / RIGHT OF WAY
- PROPOSED EASEMENT
- 100' ADJACENT AREA/BUFFER LINE
- NYSDEC JURISDICTIONAL WETLAND LINE
- ACOE/TOWN JURISDICTIONAL WETLAND LINE

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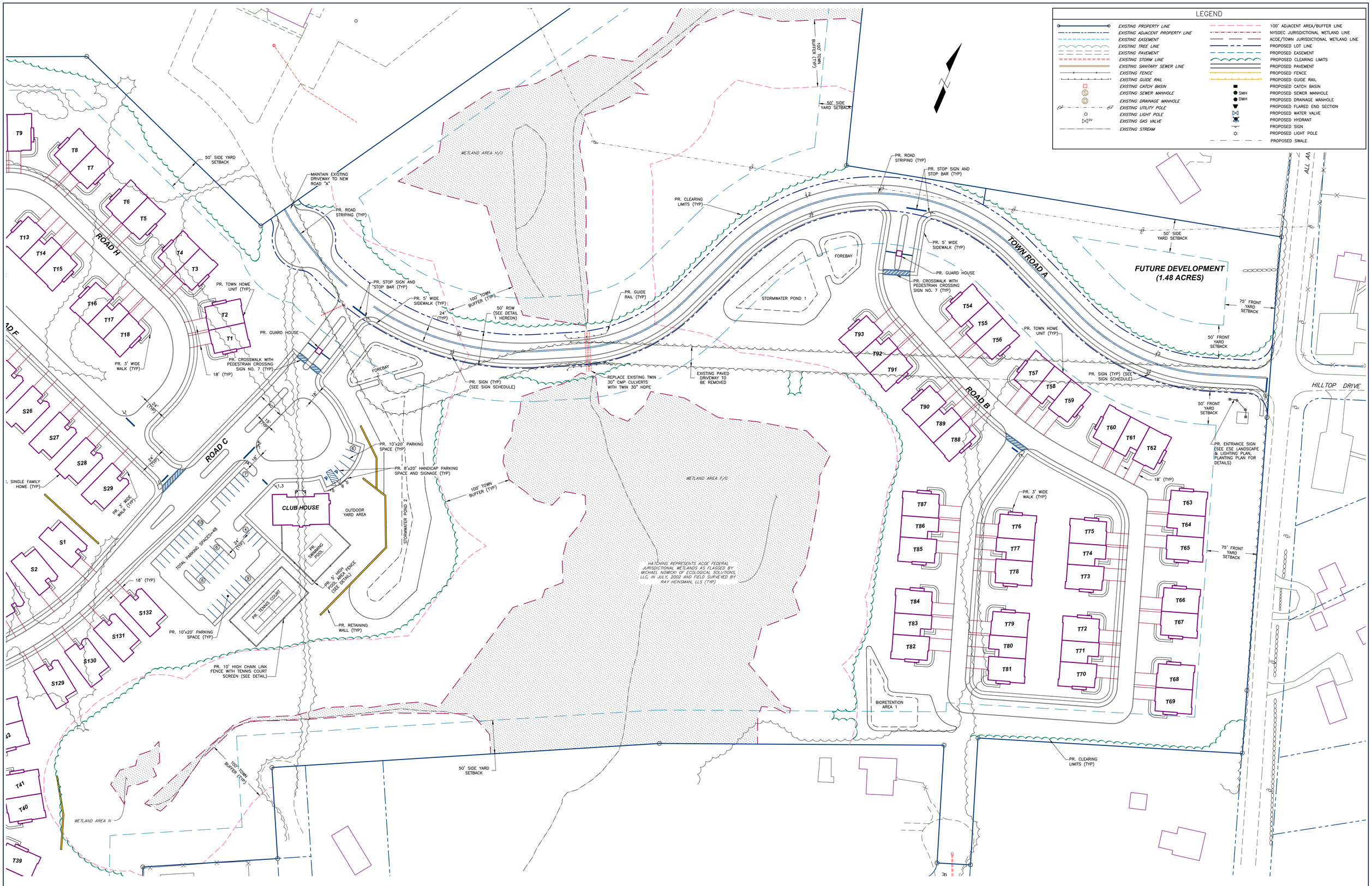
HILLTOP VILLAGE AT WAPPINGER

LOT LINE REALIGNMENT PLAN

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #:	0552
DATE:	09/30/11
SCALE:	AS SHOWN
	SD-1
	SHEET 4 OF 29



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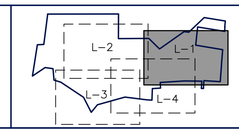

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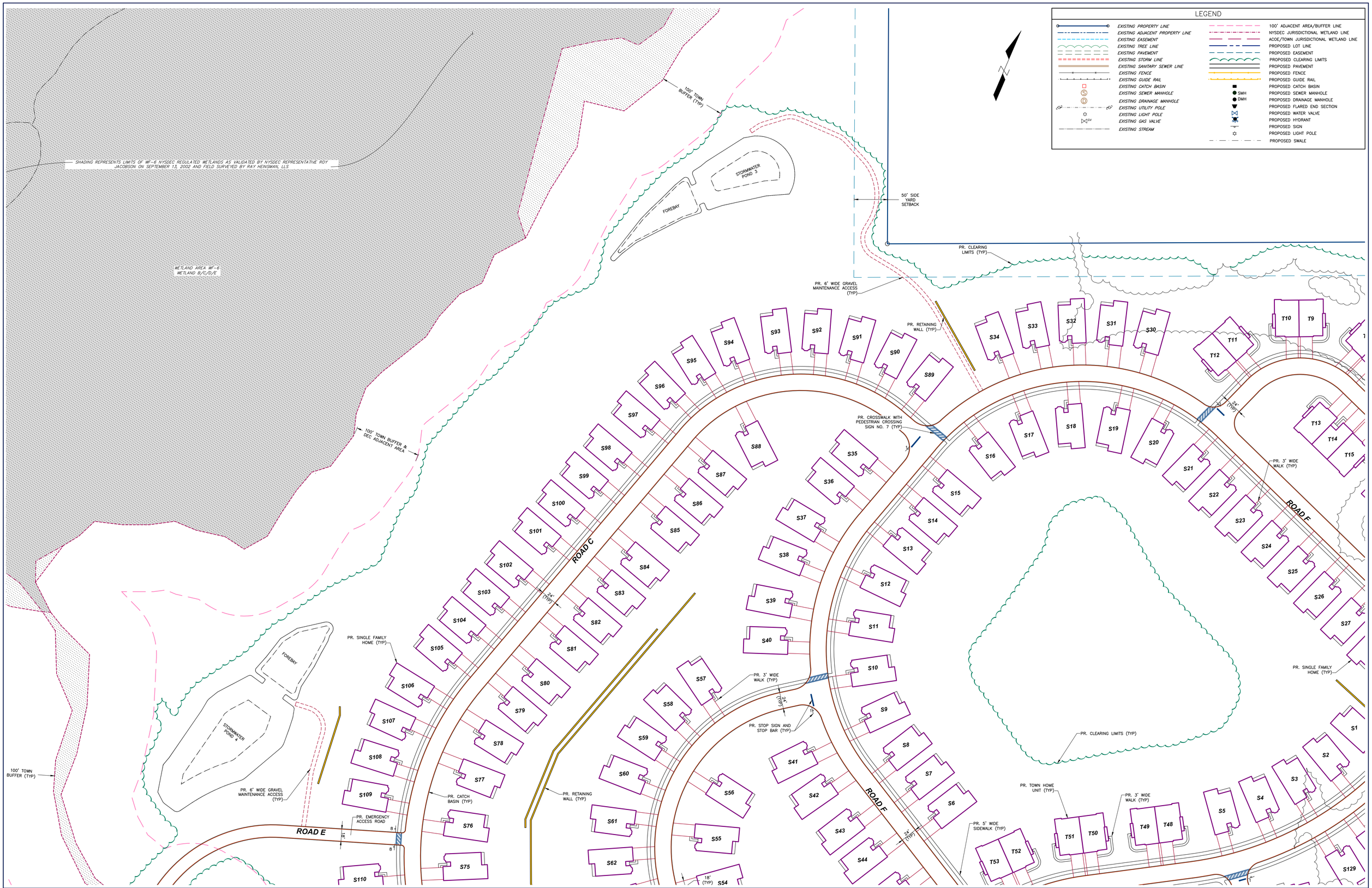
HILLTOP VILLAGE AT WAPPINGER

LAYOUT PLAN

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: 1" = 50'

L-1
SHEET 5 OF 29



REVISIONS	
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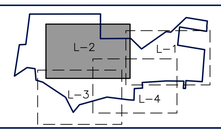

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HILLTOP VILLAGE AT WAPPINGER

LAYOUT PLAN

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: 1" = 50'

L-2
SHEET 6 OF 29

100' TOWN BUFFER (TYP)
PR. 6' WIDE GRAVEL MAINTENANCE ACCESS (TYP)
PR. EMERGENCY ACCESS ROAD
PR. CATCH BASIN (TYP)
PR. RETAINING WALL (TYP)
PR. TOWN HOME UNIT (TYP)
PR. 3' WIDE WALK (TYP)
PR. 5' WIDE SIDEWALK (TYP)
PR. SINGLE FAMILY HOME (TYP)
PR. EMERGENCY ACCESS GATE
PR. RETAINING WALL (TYP)
PR. STOP SIGN AND STOP BAR (TYP)
PR. CROSSWALK WITH PEDESTRIAN CROSSING SIGN (TYP)
PR. CLEARING LIMITS (TYP)
50' SIDE YARD SETBACK
PR. 6' WIDE GRAVEL MAINTENANCE ACCESS (TYP)
EXISTING 50' R.O.W.
ROAD E
ROAD F
ROAD G
ROAD C
ROAD D
18' (TYP)
24' (TYP)
FOREBAY
STORMWATER POND 5
SHAMROCK HILLS SUBDIVISION LOT 40
SHAMROCK HILLS SUBDIVISION LOT 41
SHAMROCK HILLS SUBDIVISION LOT 42
SHAMROCK HILLS SUBDIVISION LOT 43
SHAMROCK HILLS SUBDIVISION LOT 44
SHAMROCK HILLS SUBDIVISION LOT 45
SHAMROCK HILLS SUBDIVISION LOT 63
SHAMROCK HILLS DRIVE
DOOLIN COURT
TOR ROAD

LEGEND

EXISTING PROPERTY LINE	100' ADJACENT AREA/BUFFER LINE
EXISTING ADJACENT PROPERTY LINE	NYSDEC JURISDICTIONAL WETLAND LINE
EXISTING EASEMENT	ACOE/TOWN JURISDICTIONAL WETLAND LINE
EXISTING TREE LINE	PROPOSED LOT LINE
EXISTING PAVEMENT	PROPOSED EASEMENT
EXISTING STORM LINE	PROPOSED CLEARING LIMITS
EXISTING SANITARY SEWER LINE	PROPOSED PAVEMENT
EXISTING FENCE	PROPOSED FENCE
EXISTING GUIDE RAIL	PROPOSED GUIDE RAIL
EXISTING CATCH BASIN	PROPOSED CATCH BASIN
EXISTING SEWER MANHOLE	SMH PROPOSED SEWER MANHOLE
EXISTING DRAINAGE MANHOLE	DMH PROPOSED DRAINAGE MANHOLE
EXISTING UTILITY POLE	PROPOSED FLARED END SECTION
EXISTING LIGHT POLE	PROPOSED WATER VALVE
EXISTING GAS VALVE	PROPOSED HYDRANT
EXISTING STREAM	PROPOSED SIGN
	PROPOSED LIGHT POLE
	PROPOSED SWALE

REVISIONS

DATE:	DESCRIPTION:

L-1 L-2 L-3 L-4

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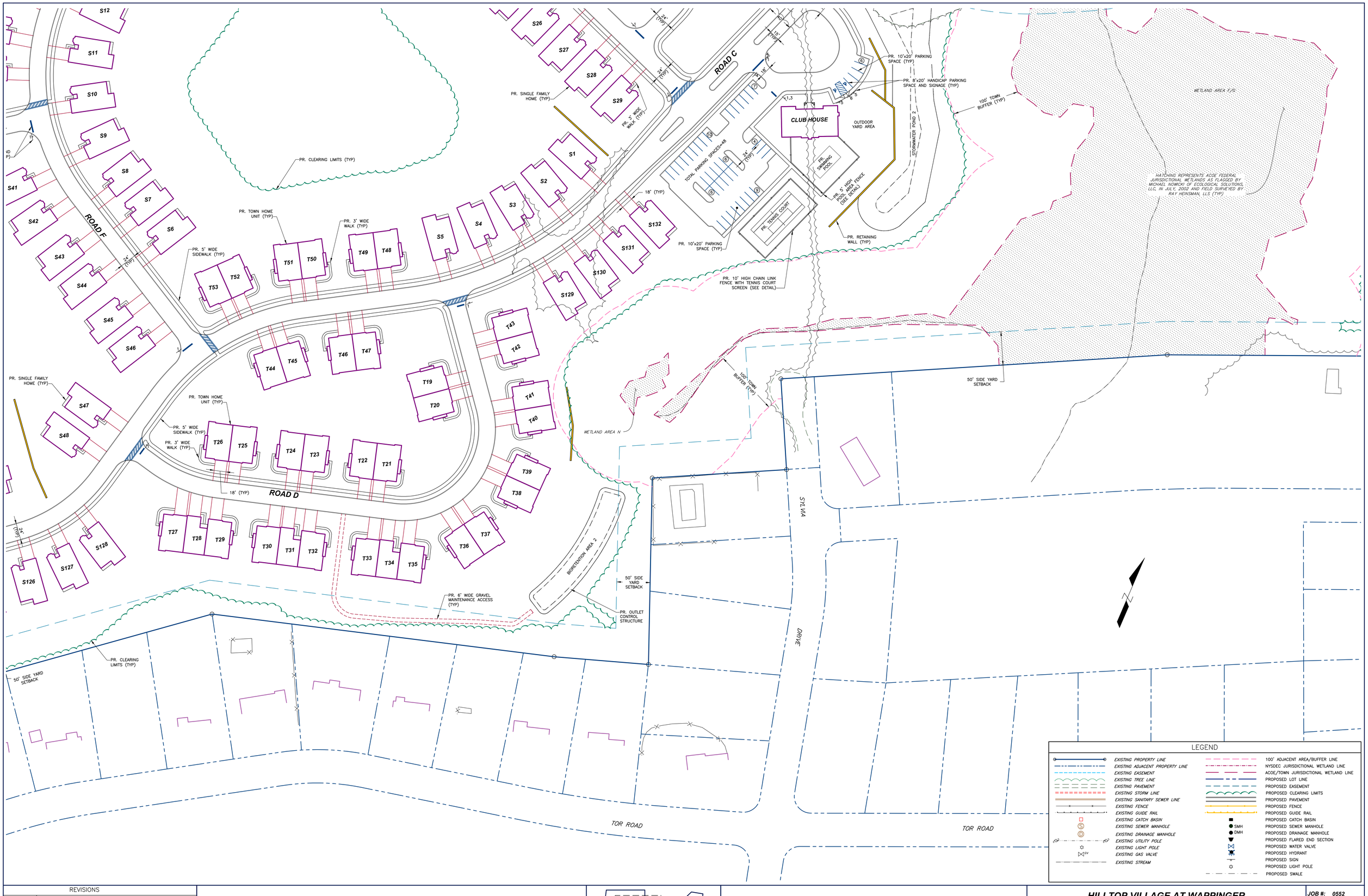
HILLTOP VILLAGE AT WAPPINGER

LAYOUT PLAN

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: 1" = 50'

L-3
SHEET 7 OF 29



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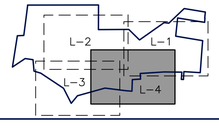

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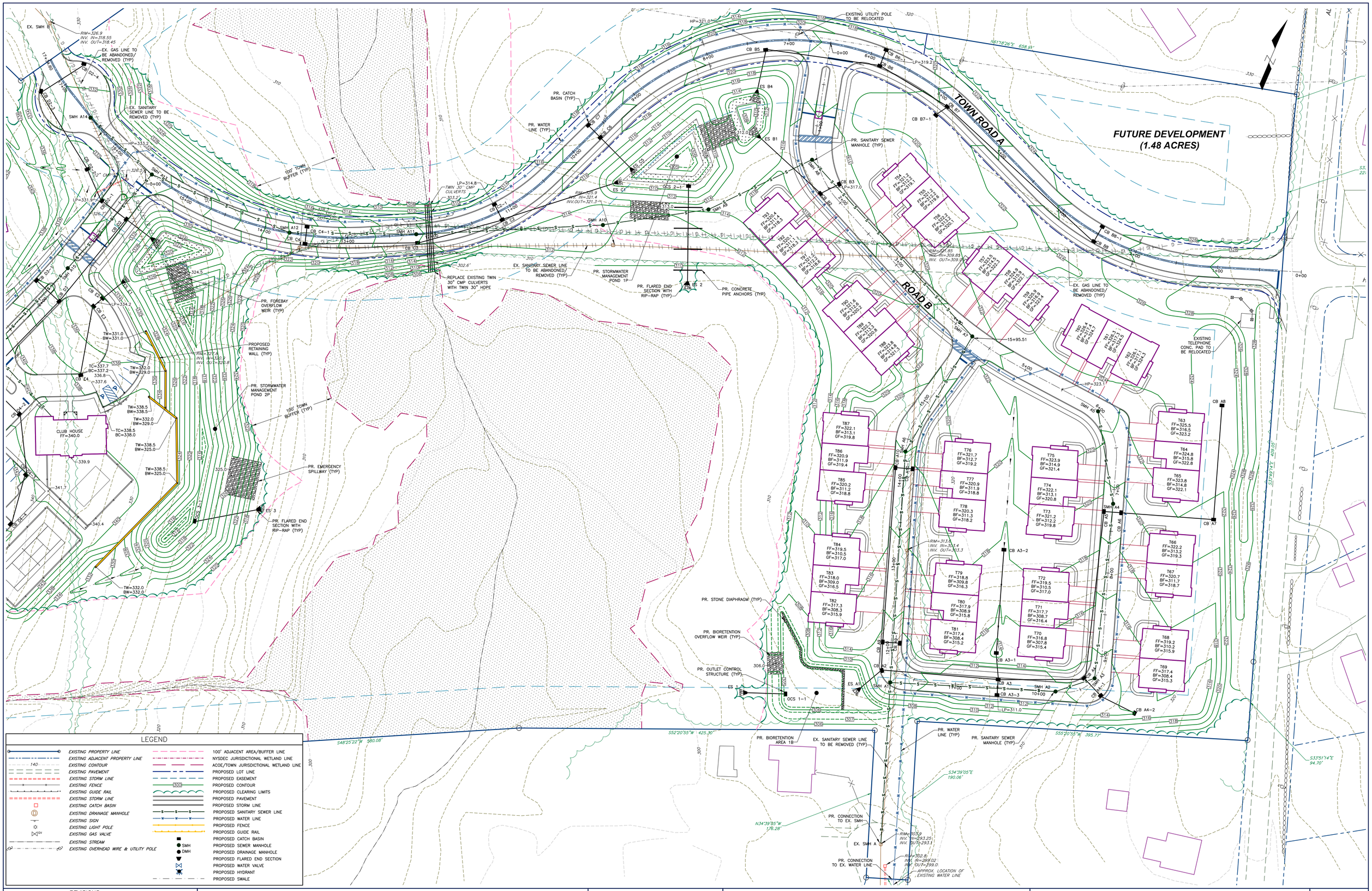
HILLTOP VILLAGE AT WAPPINGER

LAYOUT PLAN

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: 1" = 50'

L-4
SHEET 8 OF 29



REVISIONS

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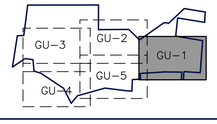

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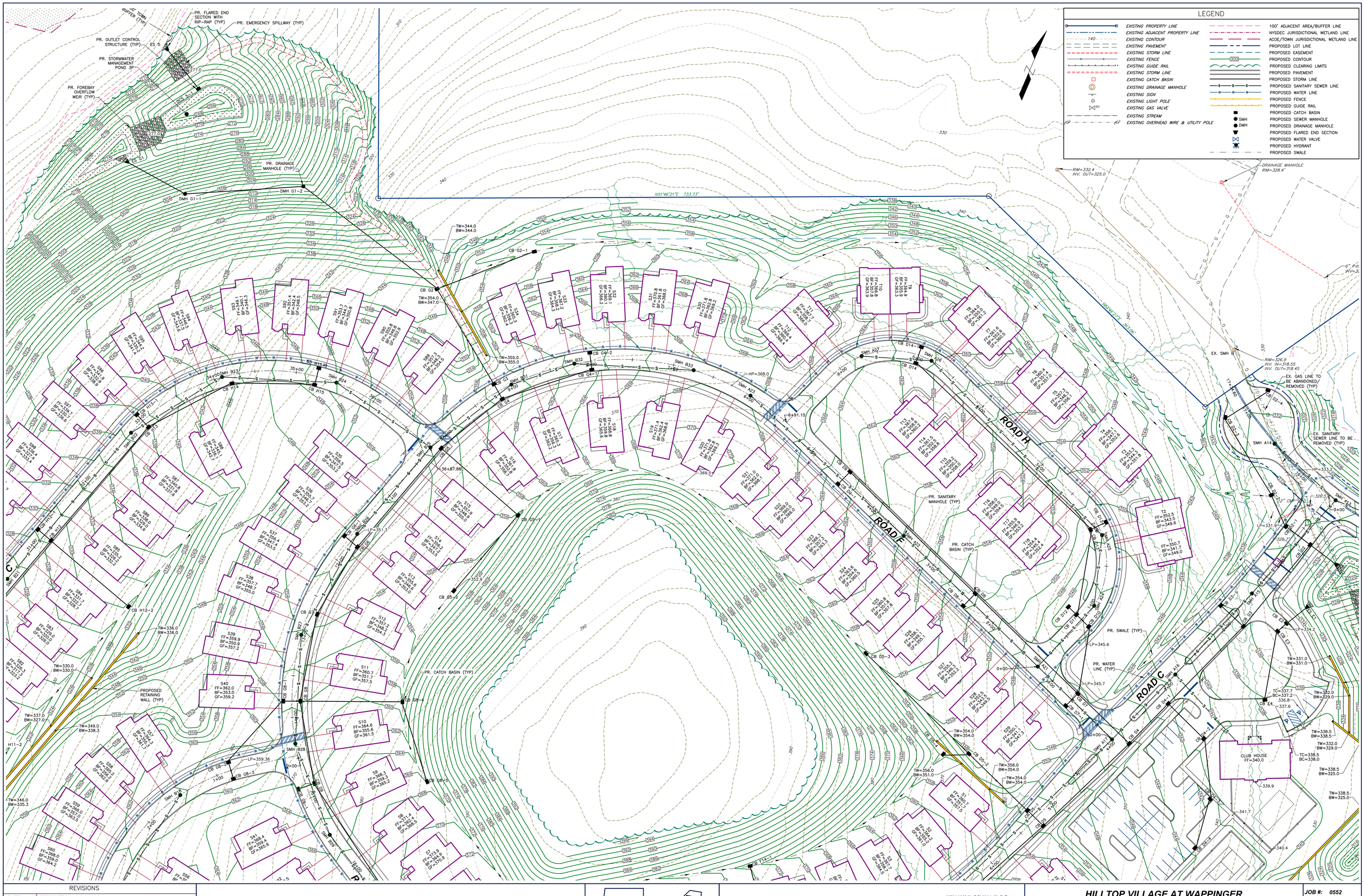
HILLTOP VILLAGE AT WAPPINGER

GRADING & UTILITY PLAN

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: 1" = 40'

GU-1
SHEET 9 OF 29



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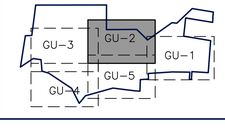

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HILLTOP VILLAGE AT WAPPINGER

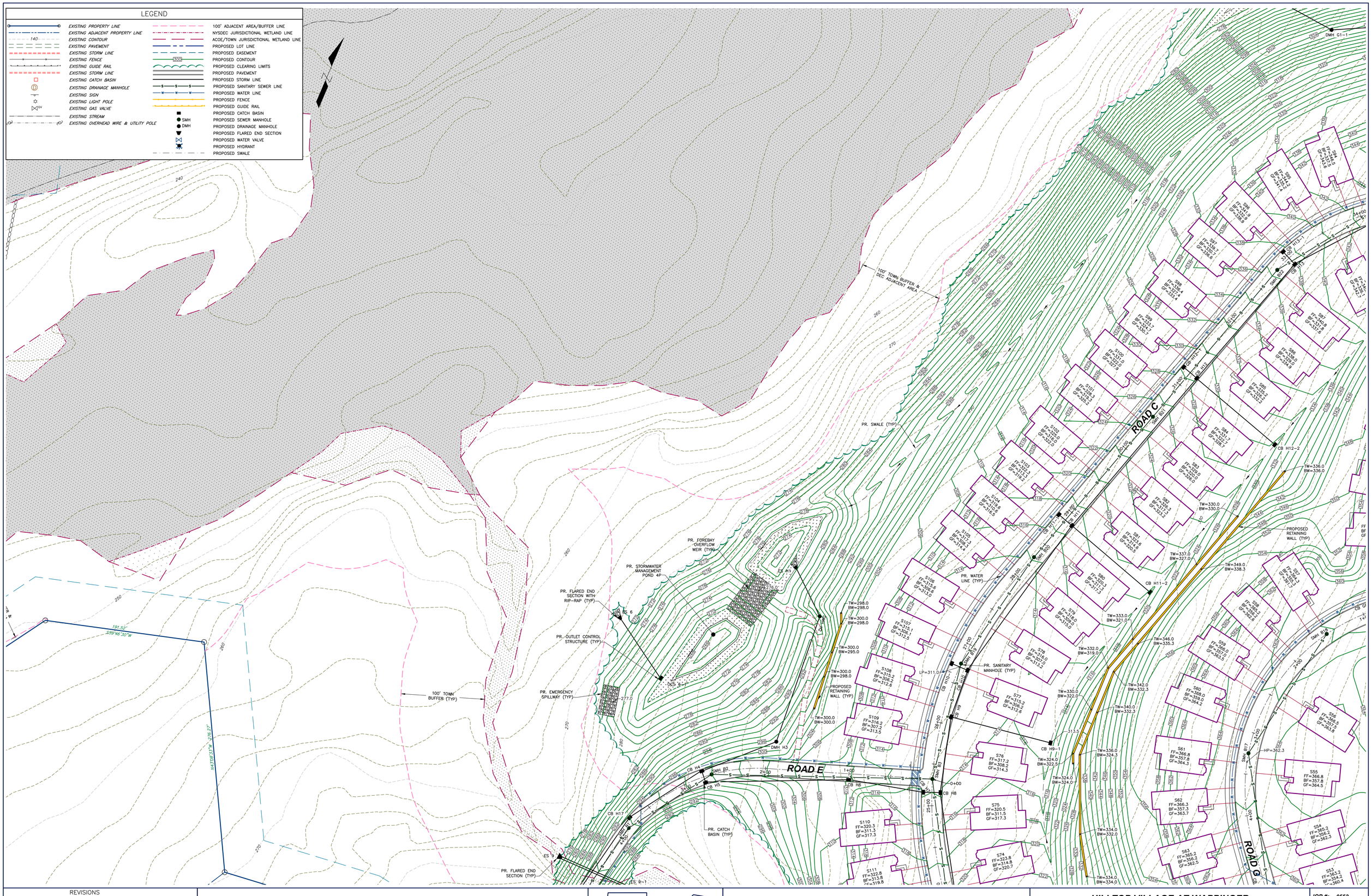
GRADING & UTILITY PLAN

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

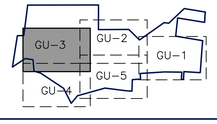
JOB #:	0552
DATE:	09/30/11
SCALE:	1" = 40'
	GU-2
	SHEET 10 OF 29

LEGEND

EXISTING PROPERTY LINE	100' ADJACENT AREA/BUFFER LINE
EXISTING ADJACENT PROPERTY LINE	NYSDEC JURISDICTIONAL WETLAND LINE
140 EXISTING CONTOUR	ACOE/TOWN JURISDICTIONAL WETLAND LINE
EXISTING PAVEMENT	PROPOSED LOT LINE
EXISTING STORM LINE	PROPOSED EASEMENT
EXISTING FENCE	1300 PROPOSED CONTOUR
EXISTING GUIDE RAIL	PROPOSED CLEARING LIMITS
EXISTING STORM LINE	PROPOSED PAVEMENT
EXISTING CATCH BASIN	PROPOSED STORM LINE
EXISTING DRAINAGE MANHOLE	PROPOSED SANITARY SEWER LINE
EXISTING SIGN	PROPOSED WATER LINE
EXISTING LIGHT POLE	PROPOSED FENCE
EXISTING GAS VALVE	PROPOSED GUIDE RAIL
EXISTING STREAM	PROPOSED CATCH BASIN
EXISTING OVERHEAD WIRE & UTILITY POLE	SMH PROPOSED SEWER MANHOLE
	DMH PROPOSED DRAINAGE MANHOLE
	PROPOSED FLARED END SECTION
	PROPOSED WATER VALVE
	PROPOSED HYDRANT
	PROPOSED SWALE



REVISIONS	
DATE:	DESCRIPTION:



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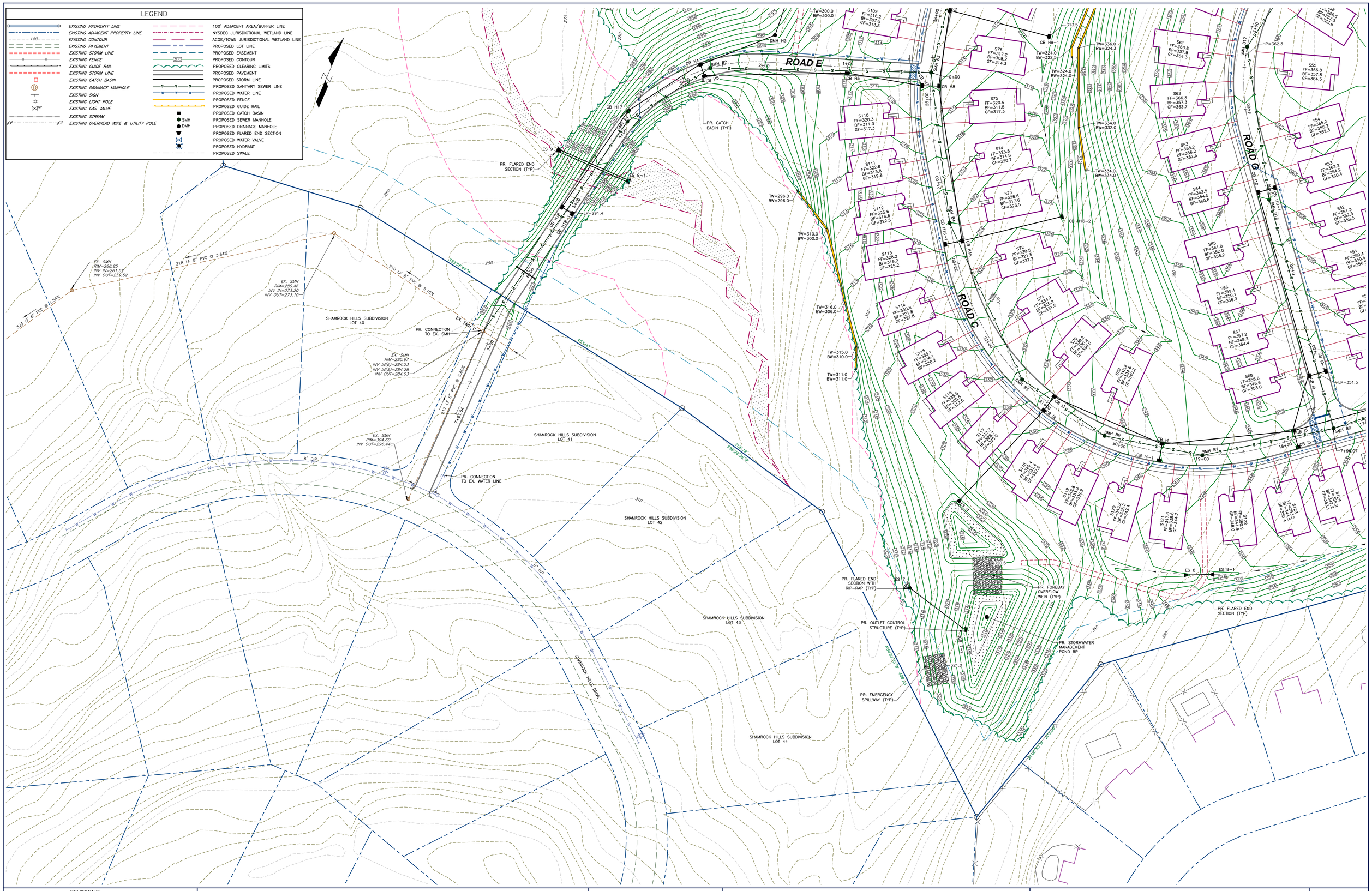
HILLTOP VILLAGE AT WAPPINGER

GRADING & UTILITY PLAN

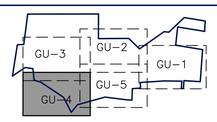
TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: 1" = 40'

GU-3
SHEET 11 OF 29



REVISIONS	
DATE:	DESCRIPTION:



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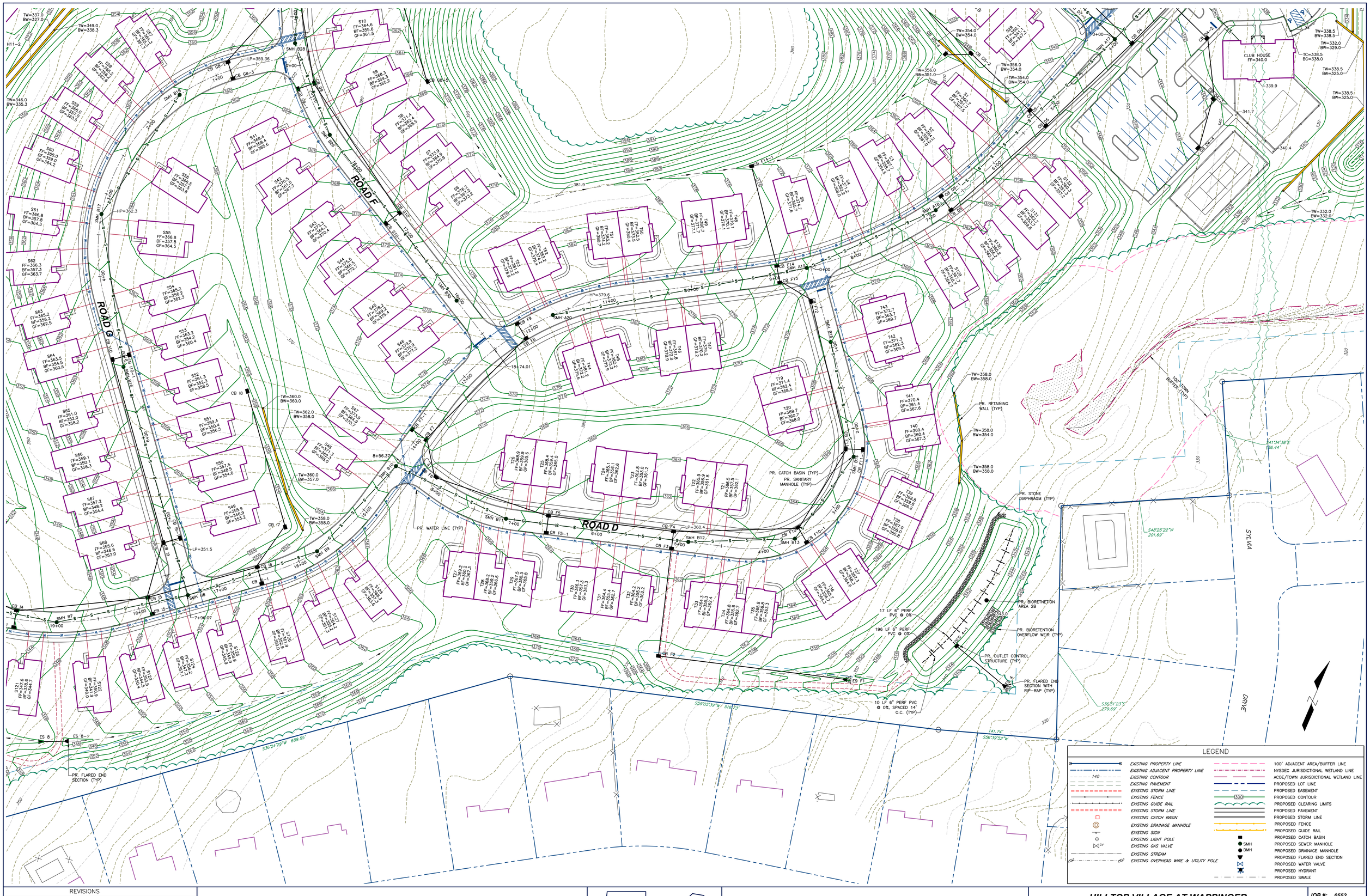
HILLTOP VILLAGE AT WAPPINGER

GRADING & UTILITY PLAN

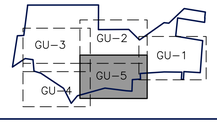
TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #:	0552
DATE:	09/30/11
SCALE:	1" = 40'
	GU-4
	SHEET 12 OF 29



REVISIONS

DATE:	DESCRIPTION:



POVALL ENGINEERING, PLLC

WILLIAM H. POVALL III, P.E.
N.Y.S.P.E. LICENSE #075020

25 CORPORATE PARK DR., SUITE C
HOPEWELL JUNCTION, NY 12533

TEL.: (845) 897-8205
FAX: (845) 897-0042

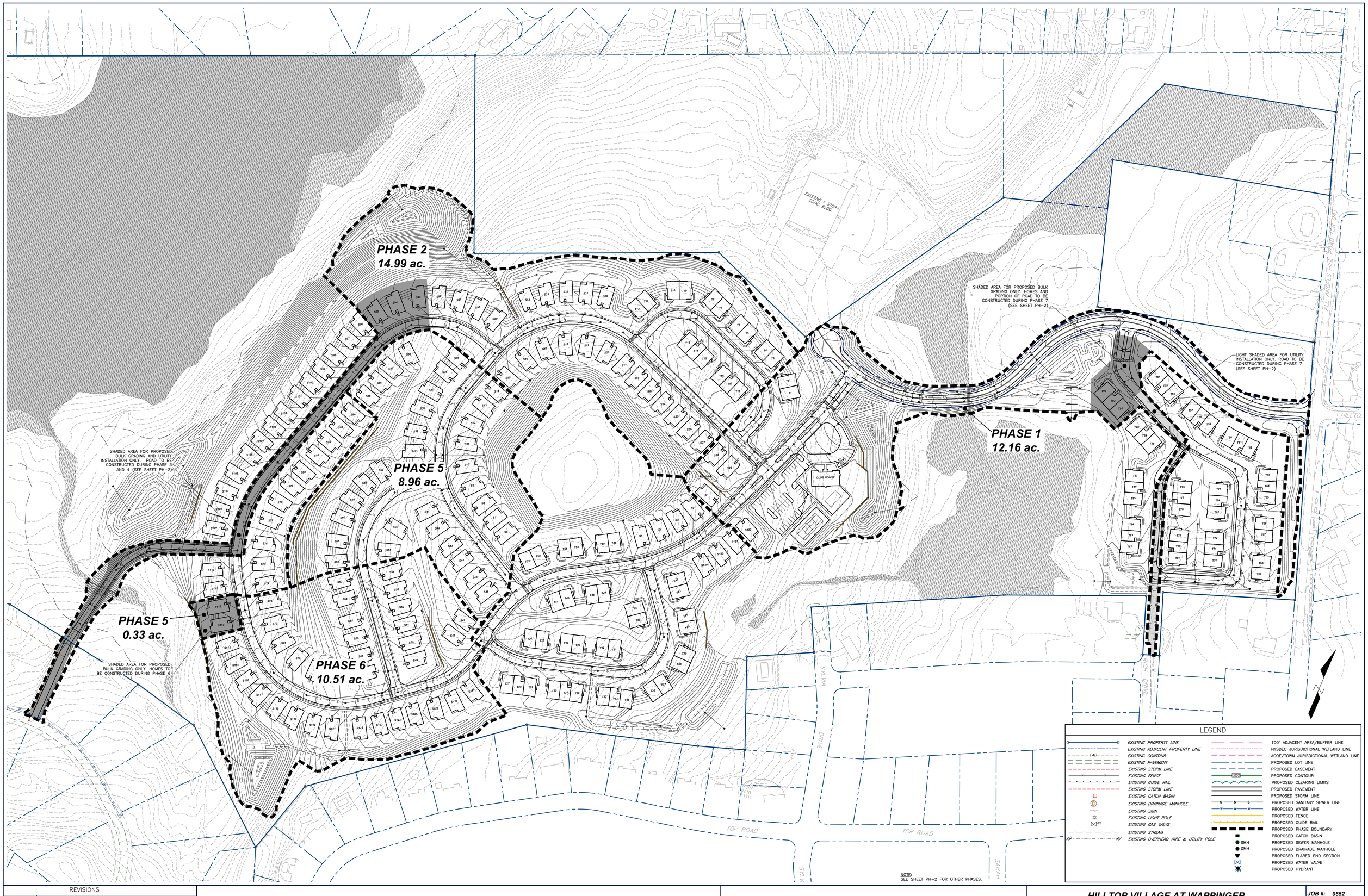
HILLTOP VILLAGE AT WAPPINGER

GRADING & UTILITY PLAN

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: 1" = 40'

GU-5
SHEET 13 OF 29



REVISIONS	
DATE:	DESCRIPTION:

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HILLTOP VILLAGE AT WAPPINGER

SITE PHASING PLAN

TOWN OF WAPPINGER

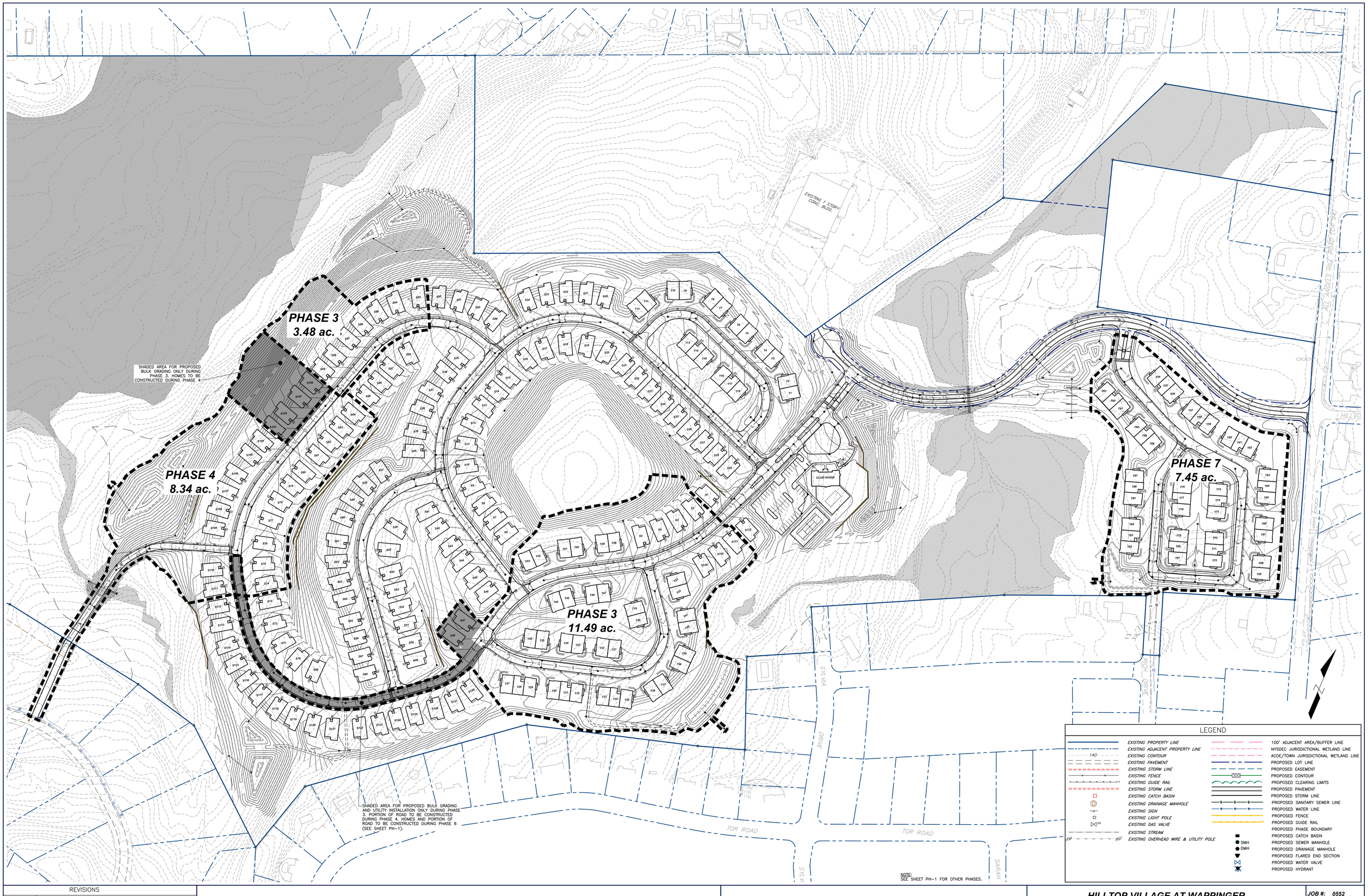
DUTCHESS COUNTY, NEW YORK

JOB #: 0552

DATE: 09/30/11

SCALE: 1" = 100'

PH-1



REVISIONS	
DATE:	DESCRIPTION:

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HILLTOP VILLAGE AT WAPPINGER

SITE PHASING PLAN

TOWN OF WAPPINGER

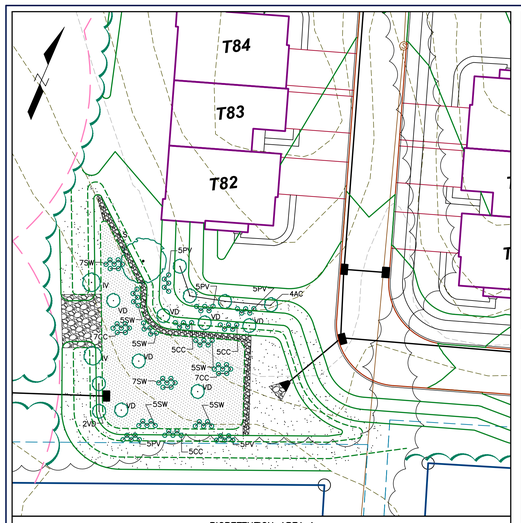
DUTCHESS COUNTY, NEW YORK

JOB #: 0552

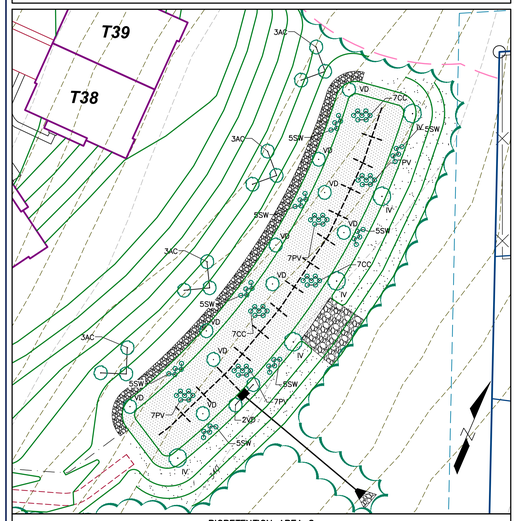
DATE: 09/30/11

SCALE: 1" = 100'

PH-2



BIORETENTION AREA 1
SCALE: 1" = 30'



BIORETENTION AREA 2
SCALE: 1" = 30'

BIORETENTION AREA 1 PLANT SCHEDULE

ZONE	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	AREA
AC	4	AMELANCHIER CANADENSIS	SERVICEBERRY	3–4' HT	--	--
IV	2	ILEX VERTICILLATA	WINTERBERRY	5–6' HT	--	--
LS	1	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2½–3" CAL.	--	--
VD	9	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3–4' HT	--	--
CC	29	CALAMAGROTIS CANADENSIS	BLUE JOINT GRASS	1 GAL. POT	--	--
PV	20	PANICUM VIRGATUM	SWITCH GRASS	1 GAL. POT	--	--
SW	39	ACORUS CALMUS	SWEET FLAG	1 GAL. POT	--	--
ZONE	SEED MIX			APPLICATION RATE		AREA
	NORTHEAST WETLAND GRASS SEED MIX (MEADOW SEED MIX)			1 LB/2,900 SQ. FT.		3,648 SQ. FT.
	LAWN SEED (SEE NOTE 2)			60 LB/ACRE		8,241 SQ. FT.

BIORETENTION AREA 2 PLANT SCHEDULE

ZONE	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	AREA
AC	12	AMELANCHIER CANADENSIS	SERVICEBERRY	3–4' HT	--	--
IV	5	ILEX VERTICILLATA	WINTERBERRY	5–6' HT	--	--
VD	12	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3–4' HT	--	--
CC	21	CALAMAGROTIS CANADENSIS	BLUE JOINT GRASS	1 GAL. POT	--	--
PV	28	PANICUM VIRGATUM	SWITCH GRASS	1 GAL. POT	--	--
SW	40	ACORUS CALMUS	SWEET FLAG	1 GAL. POT	--	--
ZONE	SEED MIX			APPLICATION RATE		AREA
	NORTHEAST WETLAND GRASS SEED MIX (MEADOW SEED MIX)			1 LB/2,900 SQ. FT.		8,495 SQ. FT.
	LAWN SEED (SEE NOTE 2)			60 LB/ACRE		5,367 SQ. FT.

STORMWATER POND 1 PLANT SCHEDULE

ZONE	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	AREA
FOREBAY						
	145	SCIRPUS CYERINUS	WOOL GRASS	2" PLUG	18" O.C.	326 SQ. FT.
	100	IRIS VERSICOLOR	BLUE FLAG IRIS	2" PLUG	18" O.C.	222 SQ. FT.
	100	PELTANDRA VIRGINICA	ARROW RUM	2" PLUG	18" O.C.	222 SQ. FT.
	100	PONTEDERIA CORDATA	PICKERELWEED	2" PLUG	18" O.C.	225 SQ. FT.
POND						
	415	SCIRPUS CYERINUS	WOOL GRASS	2" PLUG	18" O.C.	925 SQ. FT.
	265	IRIS VERSICOLOR	BLUE FLAG IRIS	2" PLUG	18" O.C.	639 SQ. FT.
	285	PELTANDRA VIRGINICA	ARROW RUM	2" PLUG	18" O.C.	590 SQ. FT.
	180	PONTEDERIA CORDATA	PICKERELWEED	2" PLUG	18" O.C.	397 SQ. FT.
IV	8	ILEX VERTICILLATA	WINTERBERRY	5–6' HT	--	--
LS	2	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2½–3" CAL.	--	--
VD	4	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3–4' HT	--	--
CC	19	CALAMAGROTIS CANADENSIS	BLUE JOINT GRASS	1 GAL. POT	--	--
PV	25	PANICUM VIRGATUM	SWITCH GRASS	1 GAL. POT	--	--
SW	30	ACORUS CALMUS	SWEET FLAG	1 GAL. POT	--	--
ZONE	SEED MIX			APPLICATION RATE		AREA
	NORTHEAST WETLAND GRASS SEED MIX (MEADOW SEED MIX)			1 LB/2,900 SQ. FT.		8,815 SQ. FT.
	LAWN SEED (SEE NOTE 2)			60 LB/ACRE		10,152 SQ. FT.

STORMWATER POND 2 PLANT SCHEDULE

ZONE	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	AREA
FOREBAY						
	110	SCIRPUS CYERINUS	WOOL GRASS	2" PLUG	18" O.C.	240 SQ. FT.
	130	IRIS VERSICOLOR	BLUE FLAG IRIS	2" PLUG	18" O.C.	287 SQ. FT.
	135	PELTANDRA VIRGINICA	ARROW RUM	2" PLUG	18" O.C.	305 SQ. FT.
	130	PONTEDERIA CORDATA	PICKERELWEED	2" PLUG	18" O.C.	288 SQ. FT.
POND						
	175	POTAMOGETON NODOSUS	LONG LEAVED POND WEED	2" PLUG	18" O.C.	393 SQ. FT.
	175	VALISHERIA AMERICANA	WLD CELERY	2" PLUG	18" O.C.	393 SQ. FT.
	395	POTAMOGETON NODUS	LONG LEAVED POND WEED	2" PLUG	18" O.C.	882 SQ. FT.
	395	VALISHERIA AMERICANA	WLD CELERY	2" PLUG	18" O.C.	882 SQ. FT.
IV	14	ILEX VERTICILLATA	WINTERBERRY	5–6' HT	--	--
LS	3	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2½–3" CAL.	--	--
VD	26	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3–4' HT	--	--
CC	90	CALAMAGROTIS CANADENSIS	BLUE JOINT GRASS	1 GAL. POT	--	--
PV	65	PANICUM VIRGATUM	SWTCH GRASS	1 GAL. POT	--	--
SW	110	ACORUS CALMUS	SWEET FLAG	1 GAL. POT	--	--
ZONE	SEED MIX			APPLICATION RATE		AREA
	NORTHEAST WETLAND GRASS SEED MIX (MEADOW SEED MIX)			1 LB/2,900 SQ. FT.		22,770 SQ. FT.
	LAWN SEED (SEE NOTE 2)			60 LB/ACRE		20,566 SQ. FT.

STORMWATER POND 3 PLANT SCHEDULE

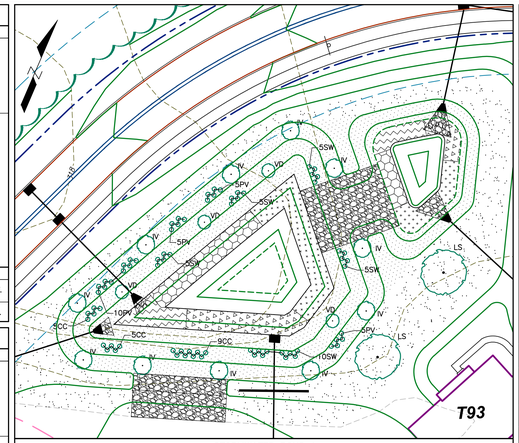
ZONE	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	AREA
FOREBAY						
	325	SCIRPUS CYERINUS	WOOL GRASS	2" PLUG	18" O.C.	728 SQ. FT.
	170	IRIS VERSICOLOR	BLUE FLAG IRIS	2" PLUG	18" O.C.	373 SQ. FT.
	170	PELTANDRA VIRGINICA	ARROW RUM	2" PLUG	18" O.C.	374 SQ. FT.
	180	PONTEDERIA CORDATA	PICKERELWEED	2" PLUG	18" O.C.	396 SQ. FT.
POND						
	295	SCIRPUS CYERINUS	WOOL GRASS	2" PLUG	18" O.C.	656 SQ. FT.
	160	IRIS VERSICOLOR	BLUE FLAG IRIS	2" PLUG	18" O.C.	354 SQ. FT.
	160	PELTANDRA VIRGINICA	ARROW RUM	2" PLUG	18" O.C.	360 SQ. FT.
	150	PONTEDERIA CORDATA	PICKERELWEED	2" PLUG	18" O.C.	332 SQ. FT.
IV	9	ILEX VERTICILLATA	WINTERBERRY	5–6' HT	--	--
LS	7	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2½–3" CAL.	--	--
VD	6	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3–4' HT	--	--
CC	30	CALAMAGROTIS CANADENSIS	BLUE JOINT GRASS	1 GAL. POT	--	--
PV	30	PANICUM VIRGATUM	SWTCH GRASS	1 GAL. POT	--	--
SW	35	ACORUS CALMUS	SWEET FLAG	1 GAL. POT	--	--
ZONE	SEED MIX			APPLICATION RATE		AREA
	NORTHEAST WETLAND GRASS SEED MIX (MEADOW SEED MIX)			1 LB/2,900 SQ. FT.		8,980 SQ. FT.
	LAWN SEED (SEE NOTE 2)			60 LB/ACRE		19,803 SQ. FT.

STORMWATER POND 4 PLANT SCHEDULE

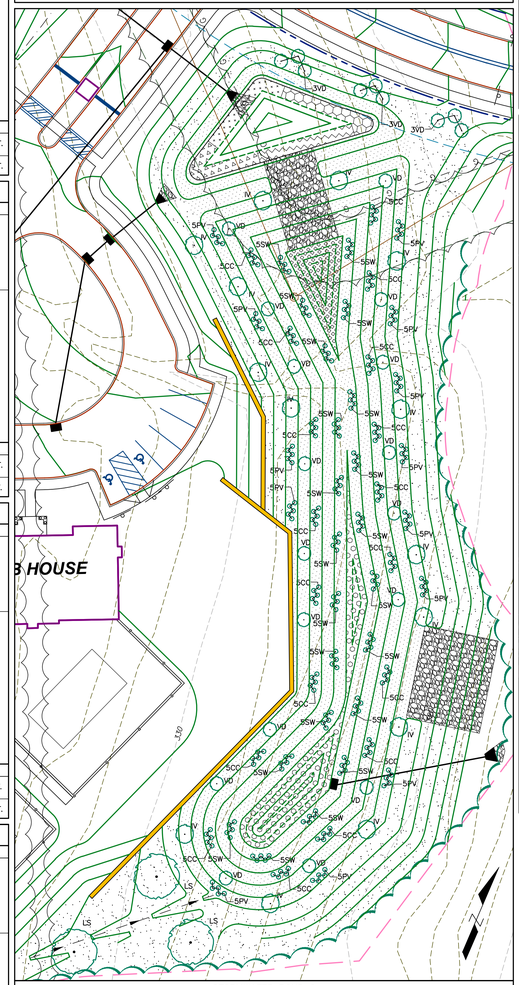
ZONE	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	AREA
FOREBAY						
	270	SCIRPUS CYERINUS	WOOL GRASS	2" PLUG	18" O.C.	599 SQ. FT.
	185	IRIS VERSICOLOR	BLUE FLAG IRIS	2" PLUG	18" O.C.	419 SQ. FT.
	195	PELTANDRA VIRGINICA	ARROW RUM	2" PLUG	18" O.C.	433 SQ. FT.
	200	PONTEDERIA CORDATA	PICKERELWEED	2" PLUG	18" O.C.	447 SQ. FT.
POND						
	420	SCIRPUS CYERINUS	WOOL GRASS	2" PLUG	18" O.C.	941 SQ. FT.
	255	IRIS VERSICOLOR	BLUE FLAG IRIS	2" PLUG	18" O.C.	574 SQ. FT.
	250	PELTANDRA VIRGINICA	ARROW RUM	2" PLUG	18" O.C.	555 SQ. FT.
	370	PONTEDERIA CORDATA	PICKERELWEED	2" PLUG	18" O.C.	831 SQ. FT.
IV	11	ILEX VERTICILLATA	WINTERBERRY	5–6' HT		
LS	8	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2½–3" CAL.	--	--
VD	11	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3–4' HT	--	--
CC	40	CALAMAGROTIS CANADENSIS	BLUE JOINT GRASS	1 GAL. POT	--	--
PV	50	PANICUM VIRGATUM	SWITCH GRASS	1 GAL. POT	--	--
SW	55	ACORUS CALMUS	SWEET FLAG	1 GAL. POT	--	--
ZONE	SEED MIX			APPLICATION RATE		AREA
	NORTHEAST WETLAND GRASS SEED MIX (MEADOW SEED MIX)			1 LB/2,900 SQ. FT.		19,223 SQ. FT.
	LAWN SEED (SEE NOTE 2)			60 LB/ACRE		25,372 SQ. FT.

STORMWATER POND 5 PLANT SCHEDULE

ZONE	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	AREA
FOREBAY						
	175	SCIRPUS CYERINUS	WOOL GRASS	2" PLUG	18" O.C.	387 SQ. FT.
	190	IRIS VERSICOLOR	BLUE FLAG IRIS	2" PLUG	18" O.C.	425 SQ. FT.
	170	PELTANDRA VIRGINICA	ARROW RUM	2" PLUG	18" O.C.	380 SQ. FT.
	175	PONTEDERIA CORDATA	PICKERELWEED	2" PLUG	18" O.C.	393 SQ. FT.
POND						
	390	SCIRPUS CYERINUS	WOOL GRASS	2" PLUG	18" O.C.	874 SQ. FT.
	120	IRIS VERSICOLOR	BLUE FLAG IRIS	2" PLUG	18" O.C.	271 SQ. FT.
	115	PELTANDRA VIRGINICA	ARROW RUM	2" PLUG	18" O.C.	255 SQ. FT.
	150	PONTEDERIA CORDATA	PICKERELWEED	2" PLUG	18" O.C.	328 SQ. FT.
IV	8	ILEX VERTICILLATA	WINTERBERRY	5–6' HT	--	--
LS	7	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2½–3" CAL.	--	--
VD	8	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3–4' HT	--	--
CC	30	CALAMAGROTIS CANADENSIS	BLUE JOINT GRASS	1 GAL. POT	--	--
PV	35	PANICUM VIRGATUM	SWITCH GRASS	1 GAL. POT	--	--
SW	40	ACORUS CALMUS	SWEET FLAG	1 GAL. POT	--	--
ZONE	SEED MIX			APPLICATION RATE		AREA
	NORTHEAST WETLAND GRASS SEED MIX (MEADOW SEED MIX)			1 LB/2,900 SQ. FT.		11,603 SQ. FT.
	LAWN SEED (SEE NOTE 2)			60 LB/ACRE		12,878 SQ. FT.



STORMWATER POND 1
SCALE: 1" = 30'



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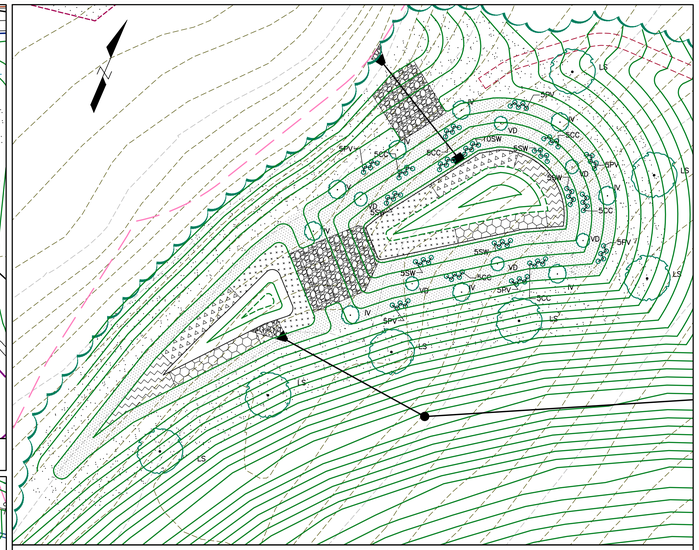

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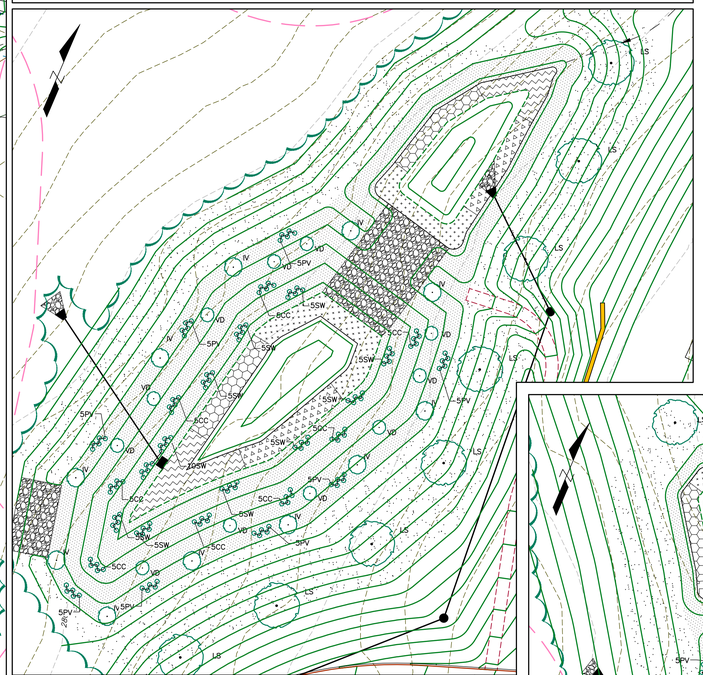

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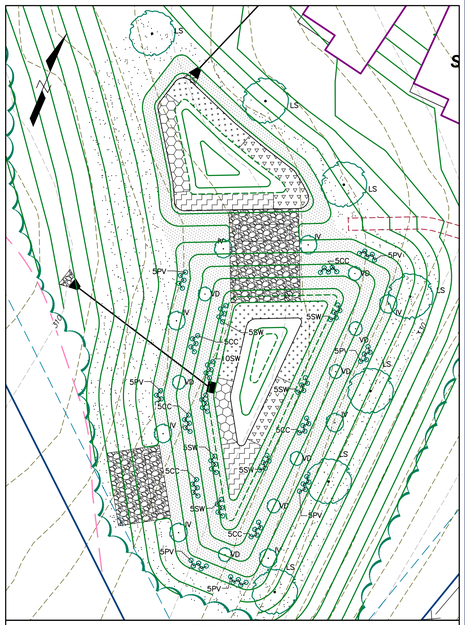
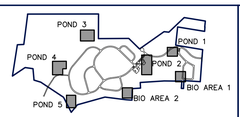


STORMWATER POND 5
SCALE: 1" = 30'

NOTES:
1. SOURCE: SOUTHERN TIER CONSULTING
   2701–A ROUTE 305
   PO BOX 30
   WEST CLARKSVILLE, NY 14786
   PHONE: 585–968–3120
2. USE LAWN SEED OUTSIDE STORMWATER POND WITHIN THE DISTURBANCE LIMITS.

REVISIONS

DATE:	DESCRIPTION:



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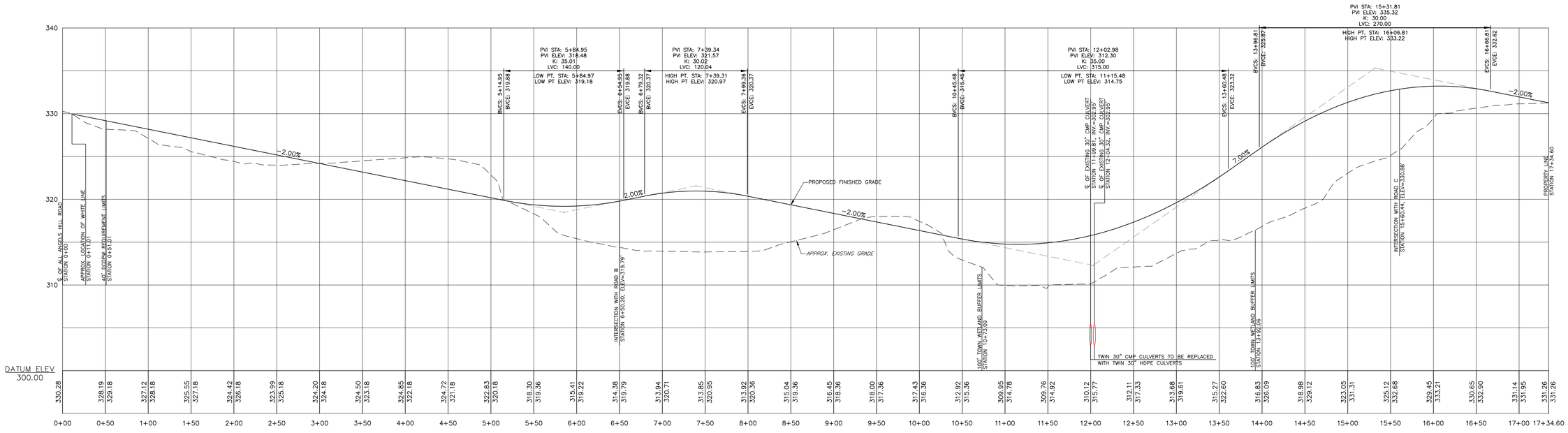
HILLTOP VILLAGE AT WAPPINGER

STORMWATER LANDSCAPING PLAN

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: AS SHOWN
SL-1
SHEET 16 OF 29



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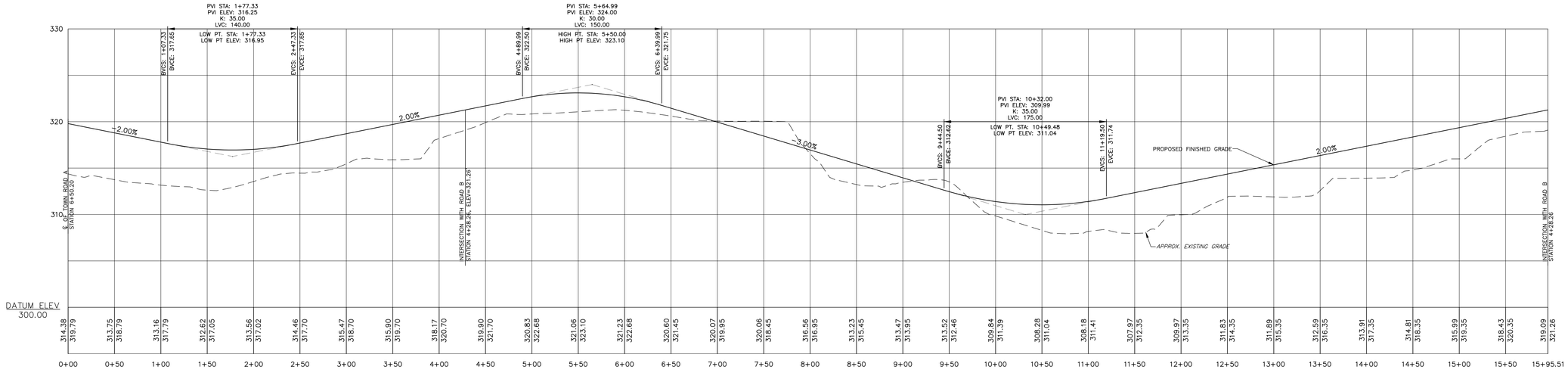

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REVISIONS	
DATE:	DESCRIPTION:

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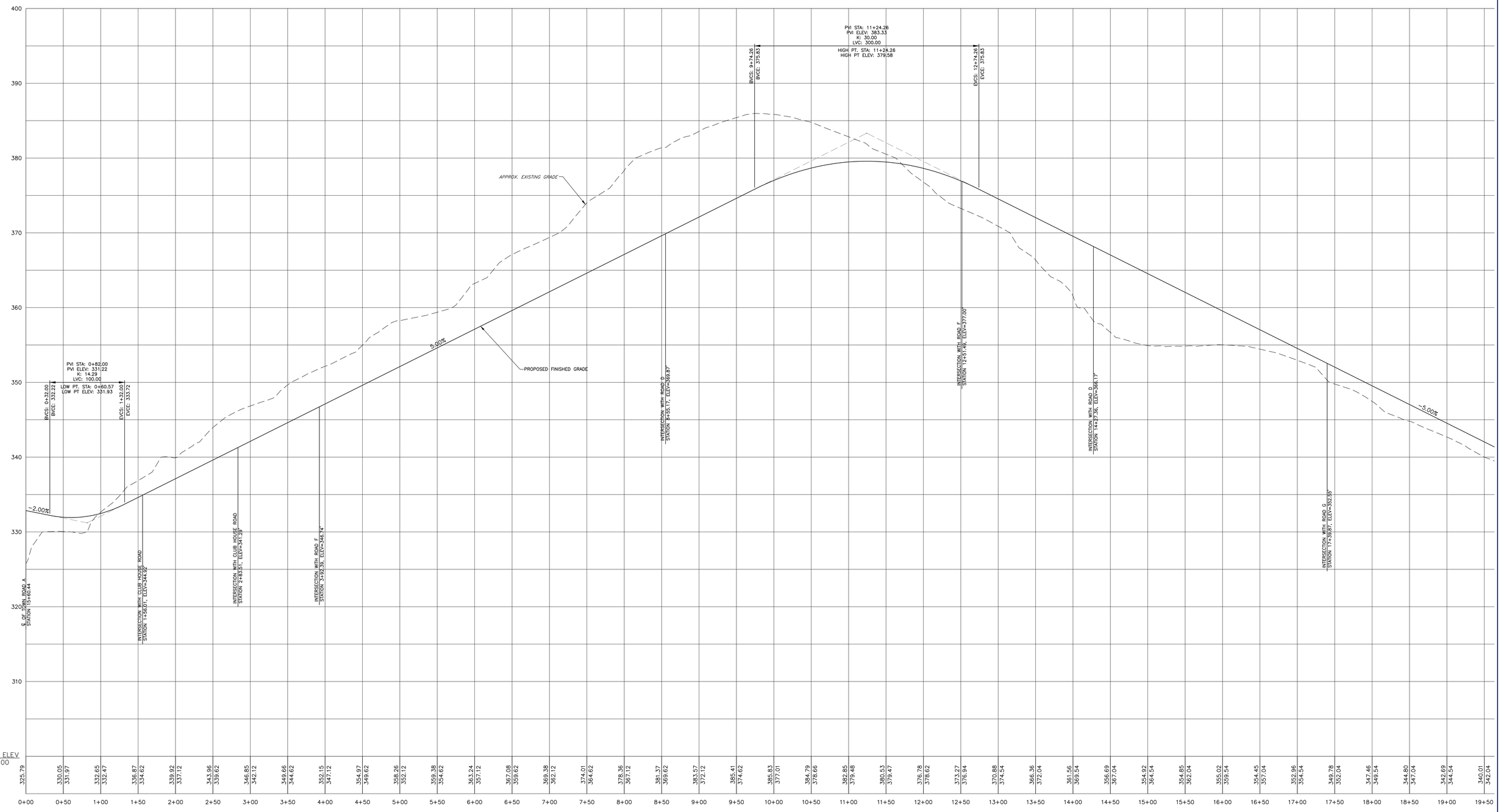
HILLTOP VILLAGE AT WAPPINGER

ROAD & UTILITY PROFILES

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: AS SHOWN
P-1
SHEET 17 OF 29



ROAD C PROFILE (STA. 0+00 TO 19+00)
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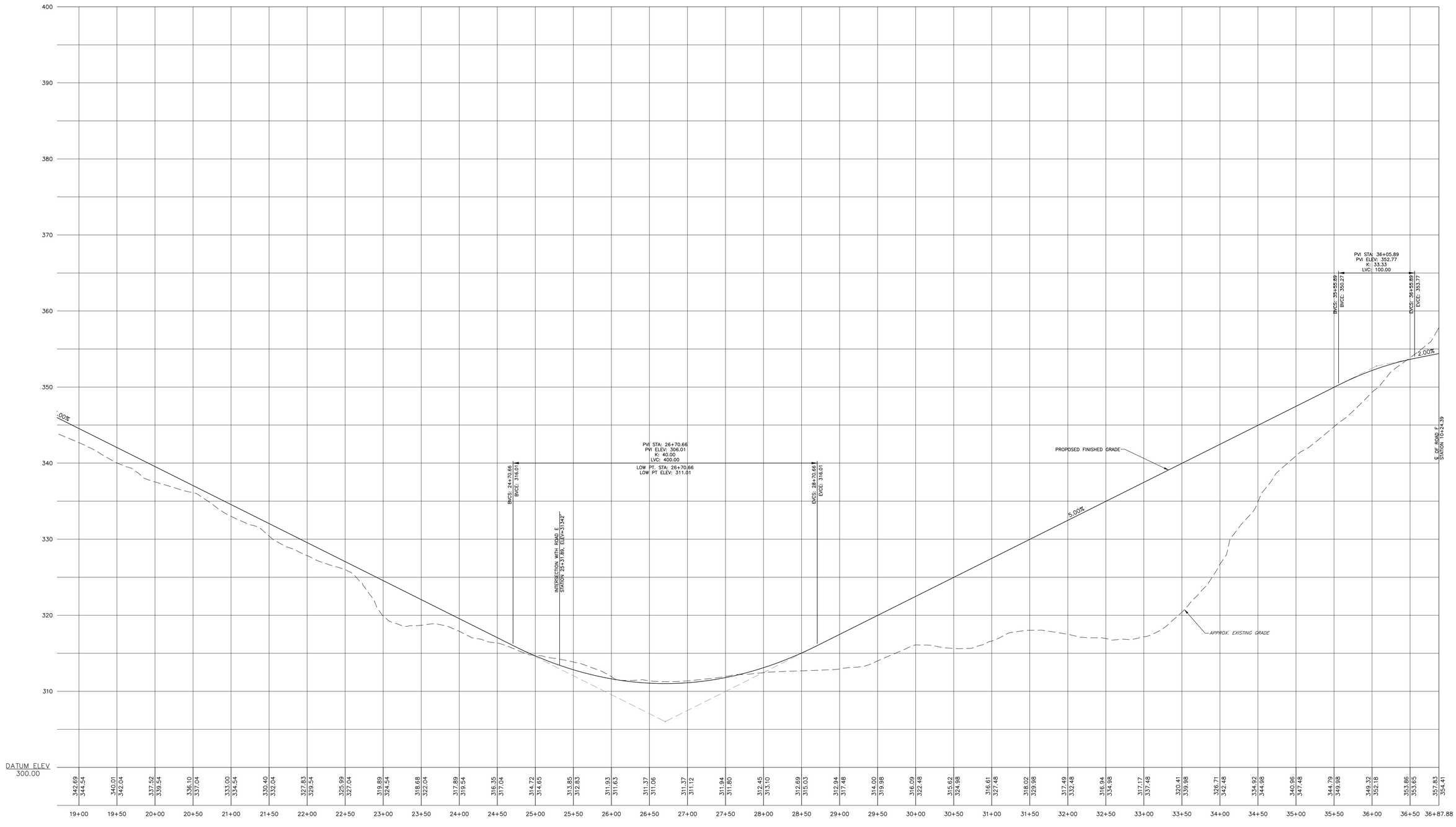
HILLTOP VILLAGE AT WAPPINGER

ROAD & UTILITY PROFILES

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: AS SHOWN



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DATE:	DESCRIPTION:

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ROAD & UTILITY PROFILES

TOWN OF WAPPINGER

DUTCHESS COUNTY, NEW YORK

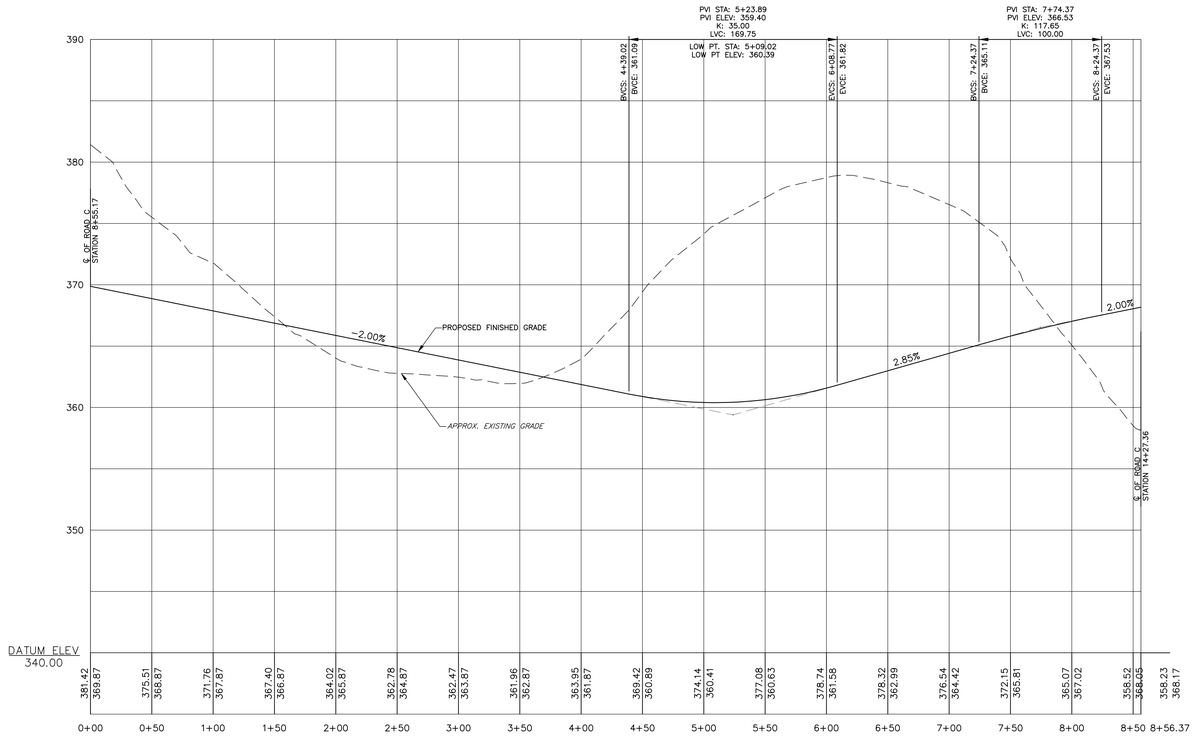
JOB #: 0552

DATE: 09/30/11

SCALE: AS SHOWN

P-3

SHEET 19 OF 29



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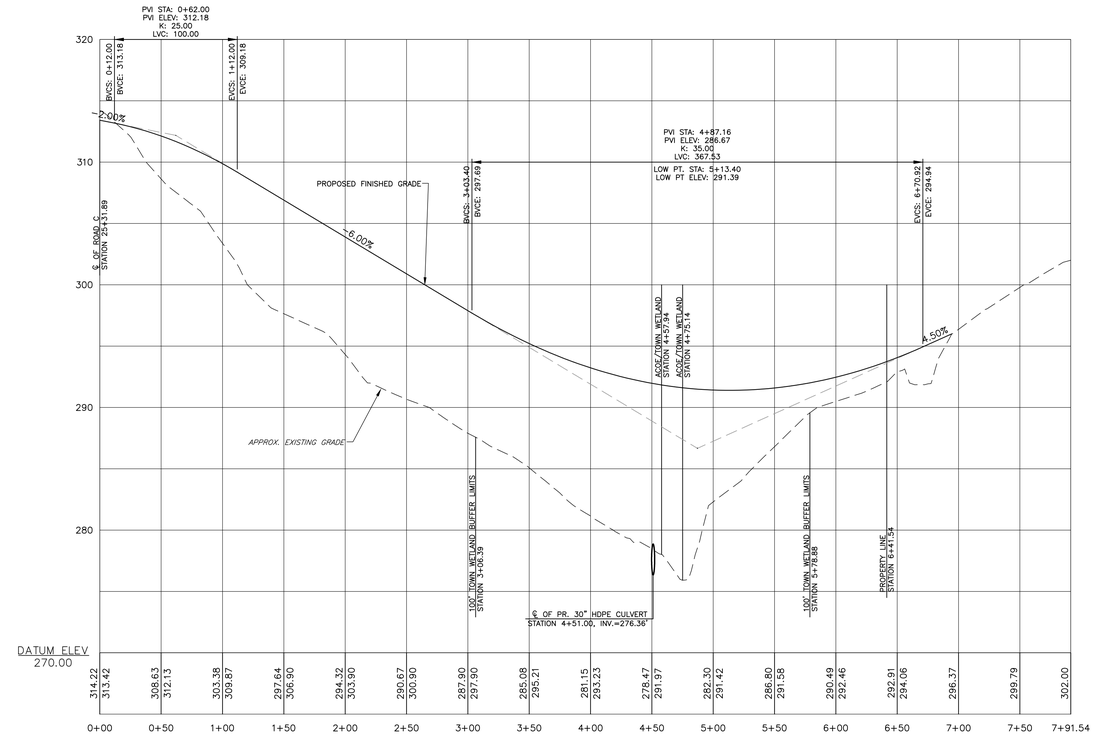

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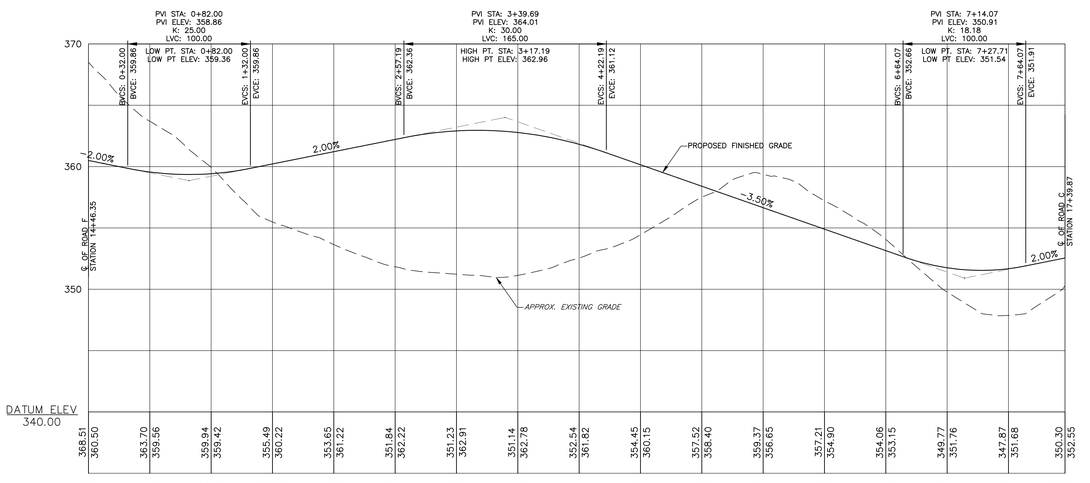
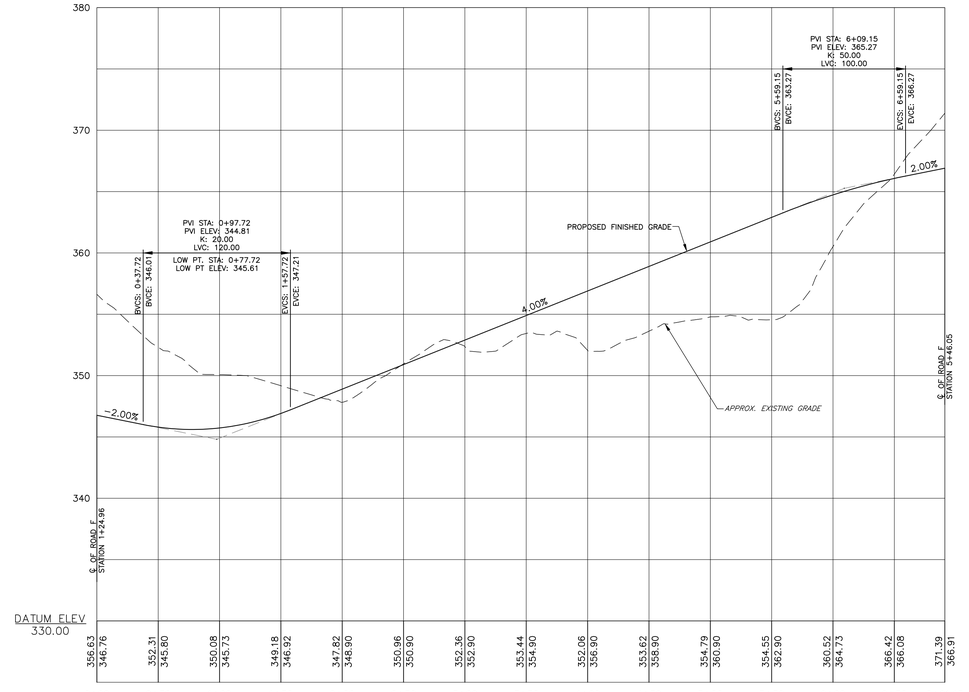


ROAD G PROFILE (STA. 0+00 TO 7+96.07)
SCALE: 1"=5' V, 1"=50' H



ROAD H PROFILE (STA. 0+00 TO 6+91.15)
SCALE: 1"=5' V, 1"=50' H

REVISIONS

DATE:	DESCRIPTION:

POVALL ENGINEERING, PLLC

WILLIAM H. POVALL III, P.E.
N.Y.S.P.E. LICENSE #075020

25 CORPORATE PARK DR., SUITE C
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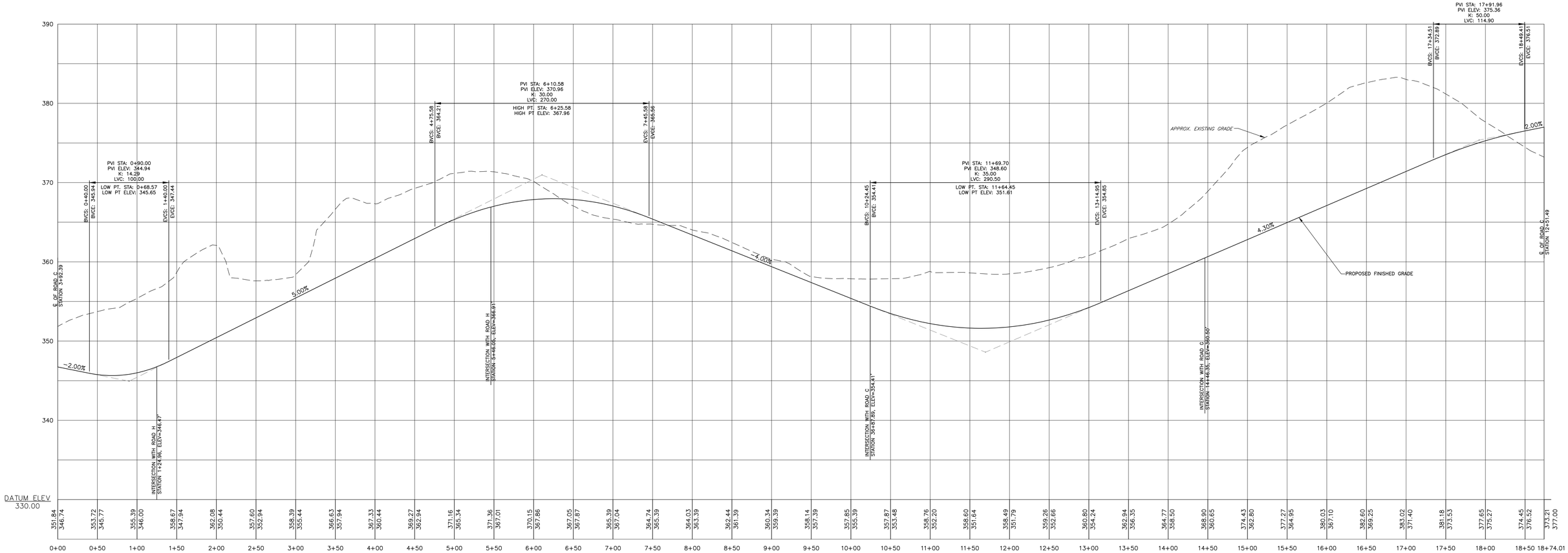
HILLTOP VILLAGE AT WAPPINGER

ROAD & UTILITY PROFILES

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: AS SHOWN

P-4
SHEET 20 OF 29



ROAD F PROFILE (STA. 0+00 TO 18+74.01)
SCALE: 1"=5' V, 1"=50' H

REVISIONS	
DATE:	DESCRIPTION:

POVALL ENGINEERING, PLLC

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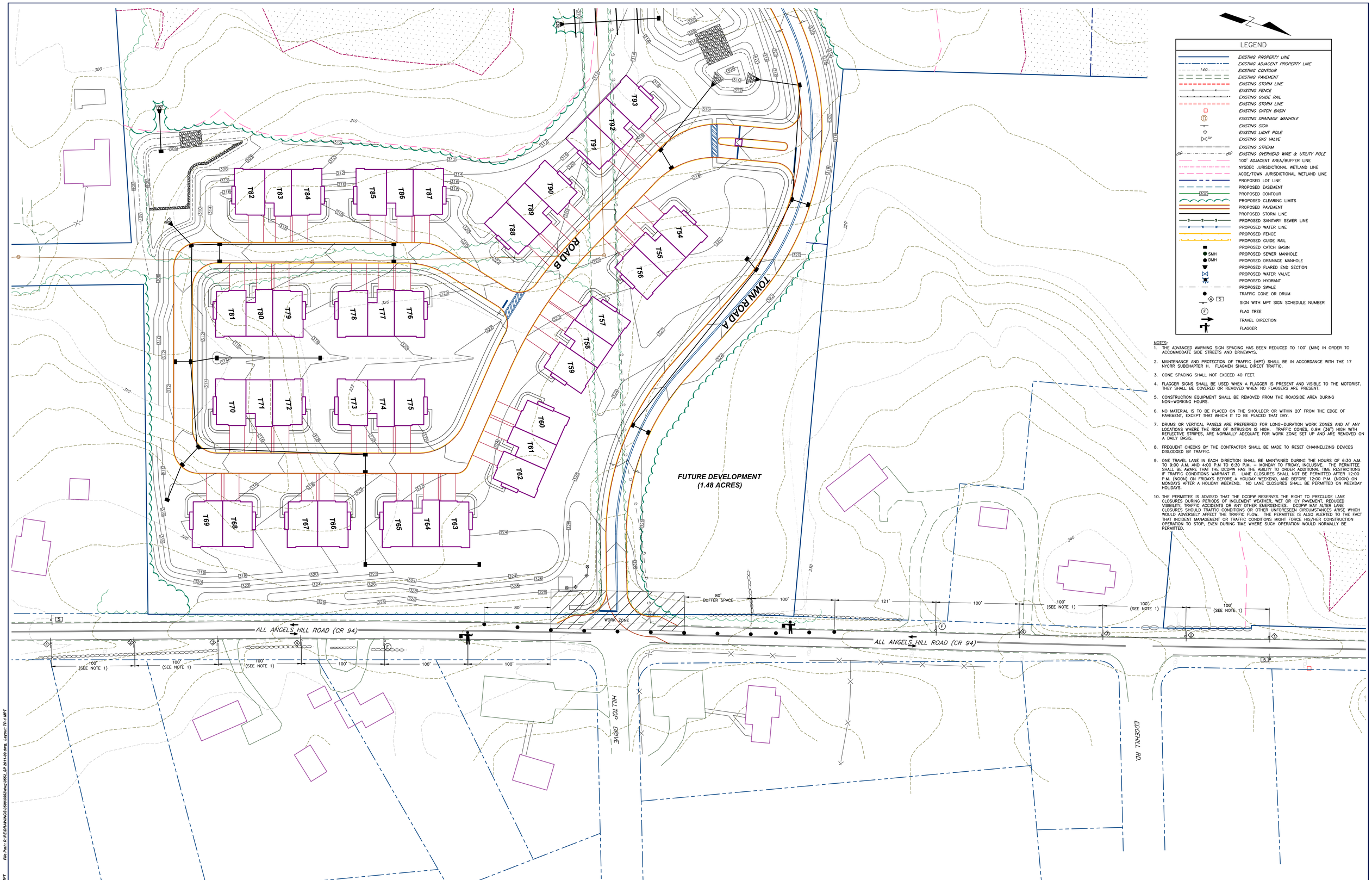
HILLTOP VILLAGE AT WAPPINGER

ROAD & UTILITY PROFILES

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #:	0552
DATE:	09/30/11
SCALE:	AS SHOWN
	P-5
	SHEET 21 OF 29



LEGEND

- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- 140 EXISTING CONTOUR
- EXISTING PAVEMENT
- EXISTING STORM LINE
- EXISTING FENCE
- EXISTING GUIDE RAIL
- EXISTING STORM LINE
- EXISTING CATCH BASIN
- EXISTING DRAINAGE MANHOLE
- EXISTING SIGN
- EXISTING LIGHT POLE
- GV EXISTING GAS VALVE
- EXISTING STREAM
- EXISTING OVERHEAD WIRE & UTILITY POLE
- 100' ADJACENT AREA/BUFFER LINE
- NYSDEC JURISDICTIONAL WETLAND LINE
- ACOE/TOWN JURISDICTIONAL WETLAND LINE
- PROPOSED LOT LINE
- PROPOSED EASEMENT
- 306 PROPOSED CONTOUR
- PROPOSED CLEARING LIMITS
- PROPOSED PAVEMENT
- PROPOSED STORM LINE
- S PROPOSED SANITARY SEWER LINE
- W PROPOSED WATER LINE
- PROPOSED FENCE
- PROPOSED GUIDE RAIL
- PROPOSED CATCH BASIN
- SMH PROPOSED SEWER MANHOLE
- DMH PROPOSED DRAINAGE MANHOLE
- PROPOSED FLARED END SECTION
- PROPOSED WATER VALVE
- PROPOSED HYDRANT
- PROPOSED SWALE
- TRAFFIC CONE OR DRUM
- 5 SIGN WITH MPT SIGN SCHEDULE NUMBER
- F FLAG TREE
- TRAVEL DIRECTION
- FLAGGER

NOTES:

1. THE ADVANCED WARNING SIGN SPACING HAS BEEN REDUCED TO 100' (MIN) IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
2. MAINTENANCE AND PROTECTION OF TRAFFIC (MPT) SHALL BE IN ACCORDANCE WITH THE 17 NYCRR SUBCHAPTER H. FLAGMEN SHALL DIRECT TRAFFIC.
3. CONE SPACING SHALL NOT EXCEED 40 FEET.
4. FLAGGER SIGNS SHALL BE USED WHEN A FLAGGER IS PRESENT AND VISIBLE TO THE MOTORIST. THEY SHALL BE COVERED OR REMOVED WHEN NO FLAGGERS ARE PRESENT.
5. CONSTRUCTION EQUIPMENT SHALL BE REMOVED FROM THE ROADSIDE AREA DURING NON-WORKING HOURS.
6. NO MATERIAL IS TO BE PLACED ON THE SHOULDER OR WITHIN 20' FROM THE EDGE OF PAVEMENT, EXCEPT THAT WHICH IT TO BE PLACED THAT DAY.
7. DRUMS OR VERTICAL PANELS ARE PREFERRED FOR LONG-DURATION WORK ZONES AND AT ANY LOCATIONS WHERE THE RISK OF INTRUSION IS HIGH. TRAFFIC CONES, 0.9M (36") HIGH WITH REFLECTIVE STRIPES, ARE NORMALLY ADEQUATE FOR WORK ZONE SET UP AND ARE REMOVED ON A DAILY BASIS.
8. FREQUENT CHECKS BY THE CONTRACTOR SHALL BE MADE TO RESET CHANNELIZING DEVICES DISLODGED BY TRAFFIC.
9. ONE TRAVEL LANE IN EACH DIRECTION SHALL BE MAINTAINED DURING THE HOURS OF 6:30 A.M. TO 9:00 A.M. AND 4:00 P.M TO 6:30 P.M. – MONDAY TO FRIDAY, INCLUSIVE. THE PERMITTEE SHALL BE AWARE THAT THE DCDPW HAS THE ABILITY TO ORDER ADDITIONAL TIME RESTRICTIONS IF TRAFFIC CONDITIONS WARRANT IT. LANE CLOSURES SHALL NOT BE PERMITTED AFTER 12:00 P.M. (NOON) ON FRIDAYS BEFORE A HOLIDAY WEEKEND, AND BEFORE 12:00 P.M. (NOON) ON MONDAYS AFTER A HOLIDAY WEEKEND. NO LANE CLOSURES SHALL BE PERMITTED ON WEEKDAY HOLIDAYS.
10. THE PERMITTEE IS ADVISED THAT THE DCDPW RESERVES THE RIGHT TO PRECLUDE LANE CLOSURES DURING PERIODS OF INCLEMENT WEATHER, WET OR ICY PAVEMENT, REDUCED VISIBILITY, TRAFFIC ACCIDENTS OR ANY OTHER EMERGENCIES. DCDPW MAY ALTER LANE CLOSURES SHOULD TRAFFIC CONDITIONS OR OTHER UNFORESEEN CIRCUMSTANCES ARISE WHICH WOULD ADVERSELY AFFECT THE TRAFFIC FLOW. THE PERMITTEE IS ALSO ALERTED TO THE FACT THAT INCIDENT MANAGEMENT OR TRAFFIC CONDITIONS MIGHT FORCE HIS/HER CONSTRUCTION OPERATION TO STOP, EVEN DURING TIME WHERE SUCH OPERATION WOULD NORMALLY BE PERMITTED.

REVISIONS

DATE:	DESCRIPTION:

POVALL ENGINEERING, PLLC

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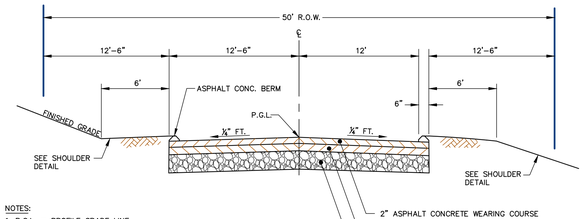
HILLTOP VILLAGE AT WAPPINGER

MAINTENANCE & PROTECTION OF TRAFFIC PLAN

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

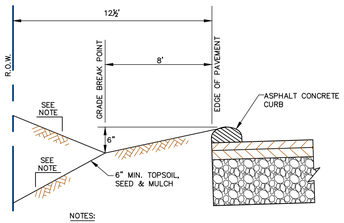
JOB #:	0552
DATE:	09/30/11
SCALE:	1" = 40'
	TP-1
	SHEET 22 OF 29

File Path: R:\PE\DRAWINGS\0500\0552\dwg\0552_SP 2011-09.dwg, Layout: TP-1 MPT
LMAN: TP-MPT
UCSDVIEW: MPT



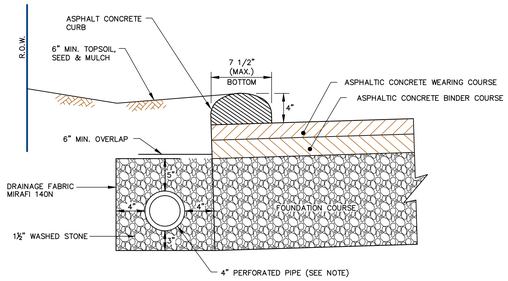
NOTES:
1. P.G.L. = PROFILE GRADE LINE
2. ROCK CUT OR FILL – TREATMENT TO BE DETERMINED BY THE HIGHWAY SUPERINTENDENT OR THE TOWN ENGINEER.
3. ALL CONCRETE ASPHALT PAVEMENT AND FOUNDATION COURSE MATERIAL SHALL BE APPROVED BY THE TOWN HIGHWAY SUPERINTENDENT AND/OR TOWN ENGINEER PRIOR TO PLACEMENT.
4. ALL CONSTRUCTION SHALL CONFORM TO THE TOWN OF WAPPINGER HIGHWAY SPECIFICATIONS.

TOWN OF WAPPINGER SUBURBAN STREET – TYPICAL SECTION
NOT TO SCALE



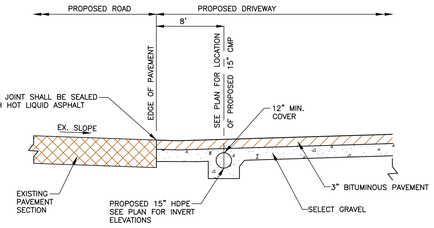
NOTES:
SLOPE = 3 ON 1 MIN.
2 ON 1 MAX.

SHOULDER DETAIL
NOT TO SCALE



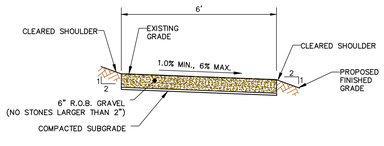
NOTES:
4" UNDERDRAIN WHERE REQUIRED BY ENGINEER TO THE TOWN OR HIGHWAY SUPERINTENDENT

ASPHALT CONCRETE CURB & UNDERDRAIN DETAIL
NOT TO SCALE

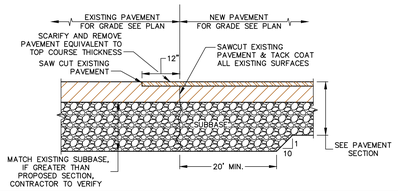


NOTES:
1. THE PROPOSED SWALES SHALL BE GRADED TO MEET PROPOSED CULVERT INVERTS AT A MINIMUM OF 1% SLOPE. INVERTS SHALL BE SET TO PROVIDE 12" MIN. COVER OVER PROPOSED DRIVEWAYS

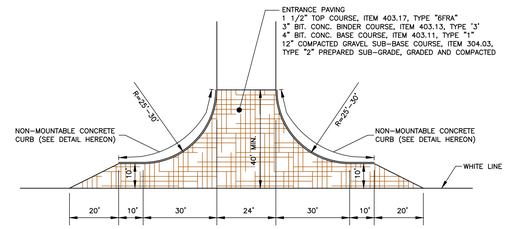
TYPICAL DRIVEWAY CULVERT DETAIL
NOT TO SCALE



GRAVEL MAINTENANCE ACCESS DETAIL
NOT TO SCALE

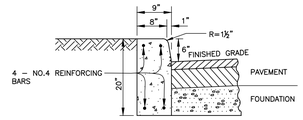


PAVEMENT TRANSITION
NOT TO SCALE



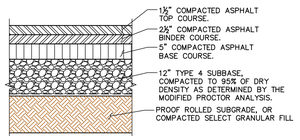
NOTE: JOINT BETWEEN PAVEMENTS TO BE SAWCUT AND SEALED

DUTCHESS COUNTY DEPARTMENT OF PUBLIC WORKS HIGHWAY ENTRANCE DETAIL
NOT TO SCALE

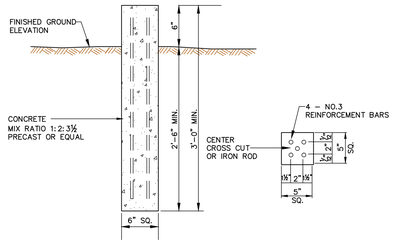


NOTES:
1. CURB SHALL BE CONSTRUCTED OF CLASS A CONCRETE. CONCRETE SHALL NOT BE PLACED AT ATMOSPHERIC TEMPERATURES BELOW 40°F. REQUIRED MIN. AIR ENTRAINMENT SHALL BE 6%.
2. CURB SHALL BE CAST IN SECTIONS APPROXIMATELY 20 FEET LONG. PROVISION SHALL BE MADE AT EACH JOINT FOR EXPANSION OF 1/4 INCH.
3. THERE SHALL BE ATLEAST 1-1/2 INCH COVER OVER REINFORCING BARS.

DUTCHESS COUNTY DEPARTMENT OF PUBLIC WORKS NON-MOUNTABLE CONCRETE CURB DETAIL
NOT TO SCALE

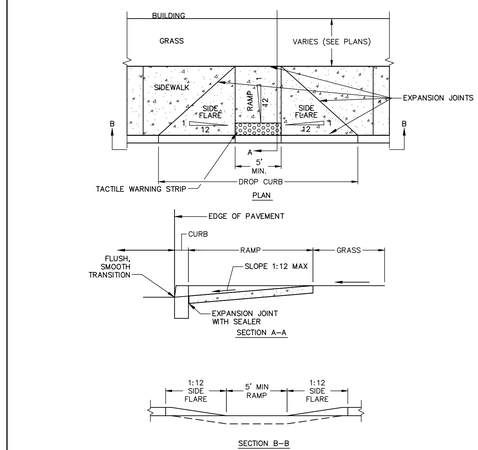


DUTCHESS COUNTY DEPARTMENT OF PUBLIC WORKS SUBDIVISION ROAD PAVEMENT SECTION
NOT TO SCALE

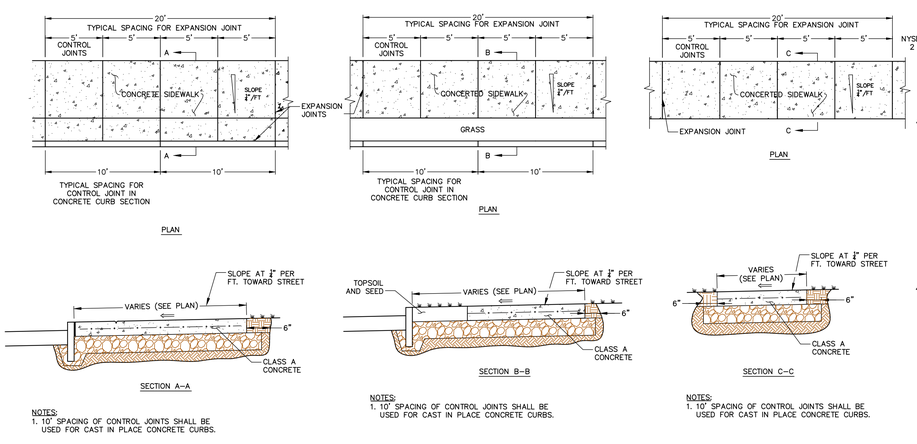


NOTE:
PERMANENT CONCRETE MONUMENTS ARE NOT TO BE SET UNTIL FINAL GRADING AND SEEDING OF THE STREET R.O.W., AND NOT TO BE SET UNTIL PERMISSION IS SO GRANTED BY THE HIGHWAY SUPERINTENDANT AND TOWN ENGINEER

MONUMENT DETAIL
NOT TO SCALE



PEDESTRIAN RAMP WITH FLARED SLOPES
NOT TO SCALE



NOTES:
1. 10' SPACING OF CONTROL JOINTS SHALL BE USED FOR CAST IN PLACE CONCRETE CURBS.

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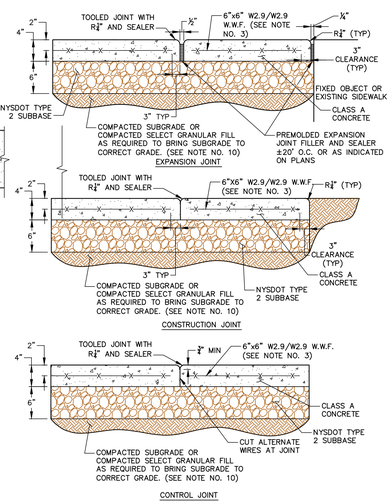
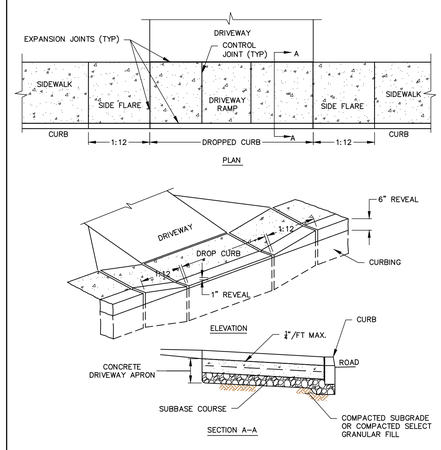


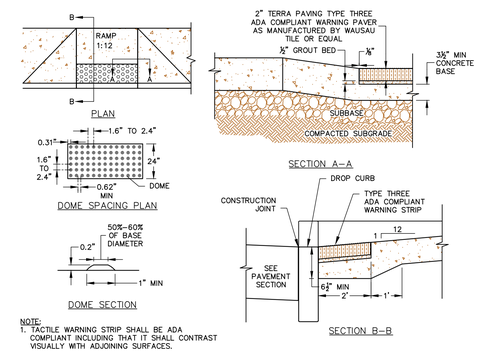
NOTES:
1. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED 2008, AND ALL ADDENDA THERETO; THE ONLY EXCEPTION BEING THAT THE WORK OF THIS CONTRACT SHALL BE MEASURED IN ENGLISH UNITS.
2. ALL CONCRETE SHALL BE 4000 PSI CLASS A CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM WITH SECTION 500 OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
3. REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH SECTION 556–REINFORCING STEEL FOR CONCRETE STRUCTURES OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.
4. ALL EXPOSED SURFACED SHALL HAVE A BROOM TEXTURED FINISH.
5. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20'–0" ON CENTER, OR AS INDICATED ON PLANS.
6. JOINTS SHALL NOT BE SAW CUT.
7. EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH "SUREBOND"/"SAFEBOND" SB–7000 INTENSIFIER BRIGHT PROTECTOR AND SIDEWALK SEALER, OR EQUAL. RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.
8. SUBBASE MATERIAL SHALL CONFORM WITH SECTION 304 OF THE ABOVE REFERENCED NYSDOT STANDARD.
9. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMATION WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
10. ALL WORK SHALL CONFORM WITH SECTION 608–SIDEWALK, DRIVEWAYS, AND BICYCLE PATHS OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE



NOTES:
1. ALL WORK SHALL CONFORM WITH THE NYSDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS DATED 2008 AND ALL ADDENDA THERETO; SPECIFICALLY SECTION 608– SIDEWALKS, DRIVEWAYS, AND BICYCLE PATHS.
2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.

DRIVEWAY RAMP WITH DROP CURB
NOT TO SCALE



NOTE:
1. TACTILE WARNING STRIP SHALL BE ADA COMPLIANT INCLUDING THAT IT SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.

TACTILE WARNING STRIPS FOR RAMPS
NOT TO SCALE

REVISIONS

DATE:	DESCRIPTION:

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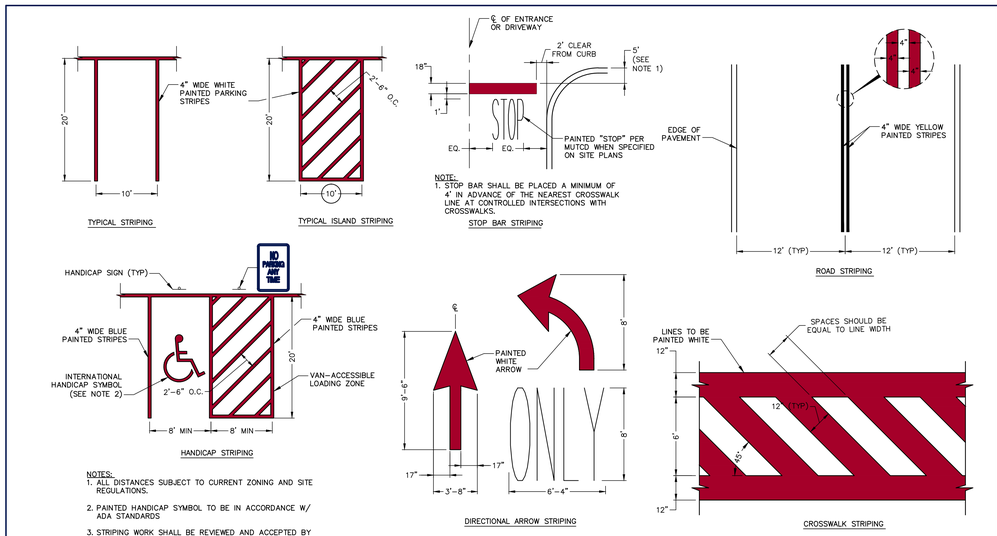
HILLTOP VILLAGE AT WAPPINGER

SITE DETAILS

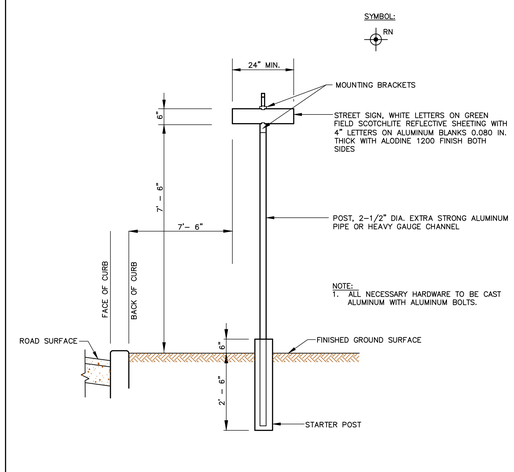
TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #:	0552
DATE:	09/30/11
SCALE:	AS SHOWN
	D-1
	SHEET 23 OF 29



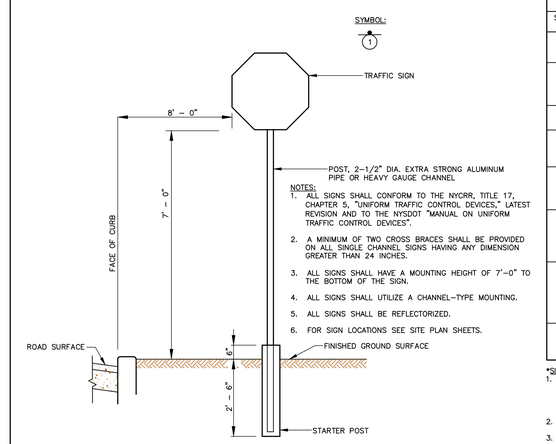
NOTES:
1. ALL DISTANCES SUBJECT TO CURRENT ZONING AND SITE REGULATIONS.
2. PAINTED HANDICAP SYMBOL TO BE IN ACCORDANCE W/ ADA STANDARDS
3. STRIPING WORK SHALL BE REVIEWED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION.

PAVEMENT MARKINGS
NOT TO SCALE



NOTE:
1. ALL NECESSARY HARDWARE TO BE CAST ALUMINUM WITH ALUMINUM BOLTS.

STREET SIGN DETAIL
NOT TO SCALE



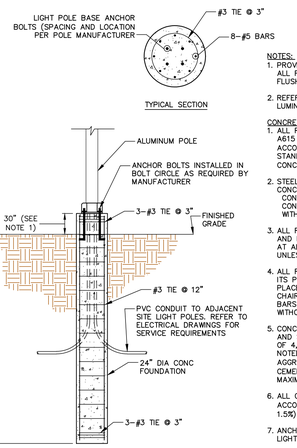
NOTES:
1. ALL SIGNS SHALL CONFORM TO THE NYCRR, TITLE 17, CHAPTER 5, "UNIFORM TRAFFIC CONTROL DEVICES," LATEST REVISION AND TO THE NYSDOT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
2. A MINIMUM OF TWO CROSS BRACES SHALL BE PROVIDED ON ALL SINGLE CHANNEL SIGNS HAVING ANY DIMENSION GREATER THAN 24 INCHES.
3. ALL SIGNS SHALL HAVE A MOUNTING HEIGHT OF 7'-0" TO THE BOTTOM OF THE SIGN.
4. ALL SIGNS SHALL UTILIZE A CHANNEL-TYPE MOUNTING.
5. ALL SIGNS SHALL BE REFLECTORIZED.
6. FOR SIGN LOCATIONS SEE SITE PLAN SHEETS.

SIGN SCHEDULE

SIGN NO.	SIGN FACE	NYS NUMBER	SIZE	BACKGROUND COLOR	LEGEND COLOR
1	STOP	R1-1	30"x30"	RED	WHITE
2	AREA SPEED LIMIT 30	R2-3	18"x24"	WHITE	BLACK
3	ONE WAY	R3-11C	36"x12"	BLACK	WHITE
4	DO NOT ENTER	R3-15C	30"x30"	RED	WHITE
5	PARKING	M12-1	24"x24"	BLUE	WHITE
6	NO PARKING ANY TIME	P1-1C (RIGHT ARROW)	12"x18"	WHITE	RED
7*	TOP	R9-8	12"x36"	FLUORESCENT YELLOW-GREEN OR YELLOW	RED BLACK
8	EMERGENCY VEHICLES ONLY	P4-1	30"x24"	WHITE	BLACK

*SIGN NO. 7 NOTES:
1. IN-STREET PEDESTRIAN CROSSING SIGN IS PLACED IN THE ROADWAY. THE SIGN SUPPORT SHALL COMPLY WITH THE BREAKAWAY REQUIREMENTS OF THE LATEST EDITION OF AASHTO'S "SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS".
2. SIGNS SHALL BE PLACED AT ALL CROSSWALKS.
3. SIGNS SHALL BE REMOVED DURING WINTER TO PREVENT PLOW DAMAGE.

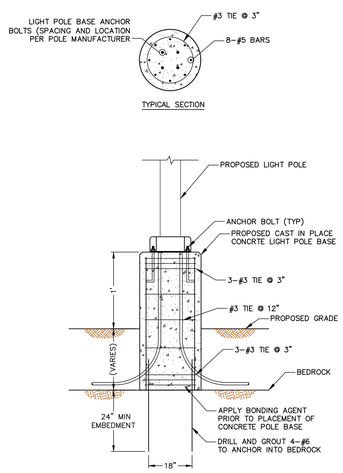
TRAFFIC SIGN DETAIL AND SIGN SCHEDULE
NOT TO SCALE



NOTES:
1. PROVIDE 30" CONCRETE FOUNDATION REVEAL FOR ALL FIXTURES WITHIN PARKING AREAS. INSTALL FLUSH TO GROUND FOR ALL OTHER AREAS.
2. REFER TO MANUFACTURER SPECIFICATIONS AND LUMINAIRE SCHEDULE ON LIGHTING PLAN.

CONCRETE NOTES:
1. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 AND BE DETAILED IN ACCORDANCE WITH ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
2. STEEL REINFORCEMENT SHALL HAVE A MINIMUM CONCRETE COVER AS FOLLOWS:
   CONCRETE DEPOSITED AGAINST GROUND: 3 IN
   CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: 2 IN
3. ALL REINFORCING BARS SHALL BE CONTINUOUS AND LAPPED A MINIMUM OF 48 BAR DIAMETERS AT ALL SPLICES, CORNERS, AND INTERSECTIONS UNLESS NOTED OTHERWISE.
4. ALL REINFORCEMENT SHALL BE SECURELY TIED IN ITS PROPOSED LOCATION PRIOR TO AND DURING PLACEMENT OF CONCRETE USING APPROVED CHAIRS, SPACERS AND TIE WIRE AS REQUIRED. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD WITHOUT THE APPROVAL OF THE ENGINEER.
5. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL DEVELOP A COMPRESSIVE STRENGTH OF 4,000 PSI IN 28 DAYS, UNLESS OTHERWISE NOTED. CONCRETE SHALL HAVE A MAXIMUM AGGREGATE SIZE OF 1-1/2 INCH, A MINIMUM CEMENT CONTENT OF 560 LBS/CU YD., AND A MAXIMUM SLUMP OF 4 INCHES.
6. ALL CONCRETE SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH ACI 301, 5.5% (PLUS 1%, MINUS 1.5%)
7. ANCHOR BOLTS SHALL BE AS SPECIFIED BY THE LIGHT POLE MANUFACTURER.
8. CONCRETE PLACED DURING COLD WEATHER CONDITIONS SHALL COMPLY WITH LATEST EDITION OF ACI 306.

LIGHT POLE BASE
NOT TO SCALE

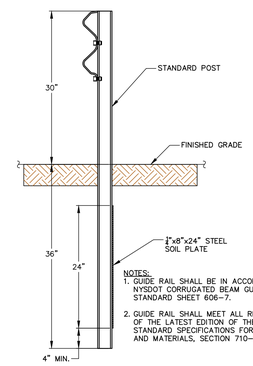


GENERAL NOTES:
1. THE WORK SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED IN ACCORDANCE WITH THE STRUCTURAL REQUIREMENTS OF THE NEW YORK STATE BUILDING CODE LATEST EDITION.
2. ALL STRUCTURAL WORK SHOWN OR SPECIFIED ON THESE DRAWINGS IS SUBJECT TO REVIEW BY THE STRUCTURAL ENGINEER OF RECORD. ASPECTS OF THE WORK FOUND NOT IN CONFORMANCE WITH THE STRUCTURAL DOCUMENTS SHALL BE CORRECTED AS DIRECTED BY THE ENGINEER.
3. DIMENSIONS AND LOCATIONS OF EXISTING STRUCTURES SHOWN ON THESE PLANS ARE NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW BEFORE PRECEDING WITH WORK. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND ACCEPT FULL RESPONSIBILITY FOR DIMENSIONAL CORRECTNESS. SHOP DRAWINGS SHALL BEAR THE REVIEW AND APPROVAL STAMP OF THE CONTRACTOR, IN ACCORDANCE WITH THE GENERAL CONDITIONS.
5. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES AND UNDERGROUND CONDUITS FOR THE DURATION OF THE PROJECT.

FOUNDATION NOTES:
1. THE FOUNDATIONS SHOWN ON THESE PLANS HAVE BEEN DESIGNED TO BE FOUNDED ON BEDROCK.

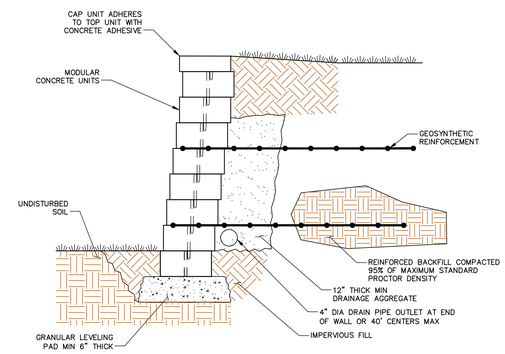
CONCRETE NOTES:
1. ALL CONCRETE WORK SHALL CONFORM TO ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".
2. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 AND BE DETAILED IN ACCORDANCE WITH ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
3. STEEL REINFORCEMENT SHALL HAVE A MINIMUM CONCRETE COVER AS FOLLOWS:
   CONCRETE DEPOSITED AGAINST GROUND: 3 IN
   CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: 2 IN
4. ALL REINFORCING BARS SHALL BE CONTINUOUS AND LAPPED A MINIMUM OF 48 BAR DIAMETERS AT ALL SPLICES, CORNERS, AND INTERSECTIONS UNLESS NOTED OTHERWISE.
5. ALL REINFORCEMENT SHALL BE SECURELY TIED IN ITS PROPOSED LOCATION PRIOR TO AND DURING PLACEMENT OF CONCRETE USING APPROVED CHAIRS, SPACERS AND TIE WIRE AS REQUIRED. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD WITHOUT THE APPROVAL OF THE ENGINEER.
6. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL DEVELOP A COMPRESSIVE STRENGTH OF 4,000 PSI IN 28 DAYS, UNLESS OTHERWISE NOTED. CONCRETE SHALL HAVE A MAXIMUM AGGREGATE SIZE OF 1-1/2 INCH, A MINIMUM CEMENT CONTENT OF 560 LBS/CU YD., AND A MAXIMUM SLUMP OF 4 INCHES.
7. ALL CONCRETE SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH ACI 301, 5.5% (PLUS 1%, MINUS 1.5%)
8. ANCHOR BOLTS SHALL BE AS SPECIFIED BY THE LIGHT POLE MANUFACTURER
9. CONCRETE PLACED DURING COLD WEATHER CONDITIONS SHALL COMPLY WITH LATEST EDITION OF ACI 306
10. EPOXY BONDING AGENT SHALL BE SIKADUR 32, HI-MOD, (OR APPROVED EQUAL) APPLIED TO THE SURFACE AREAS OF EXISTING CONCRETE IN DIRECT CONTACT WITH NEW CONCRETE. APPLY PER THE SURFACE AREAS OF EXISTING CONCRETE IN DIRECT CONTACT WITH NEW CONCRETE. APPLY PER THE MANUFACTURES WRITTEN INSTRUCTION.

LIGHT POLE FOUNDATION PIN TO BEDROCK
NOT TO SCALE



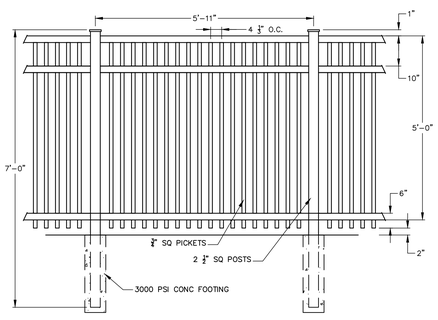
NOTES:
1. GUIDE RAIL SHALL BE IN ACCORDANCE WITH NYSDOT CORRUGATED BEAM GUIDE RAIL STANDARD SHEET 606-7.
2. GUIDE RAIL SHALL MEET ALL REQUIREMENTS OF THE LATEST EDITION OF THE NYSDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 710-20.

CORRUGATED BEAM GUIDERAIL
NOT TO SCALE



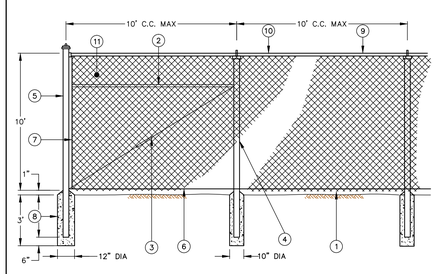
NOTE:
RETAINING WALL TO BE CONSTRUCTED IN ACCORDANCE WITH ALL MANUFACTURER SPECIFICATIONS.

SEGMENTED BLOCK RETAINING WALL
NOT TO SCALE



NOTES:
1. THE 5 FT. DECORATIVE FENCE SHALL BE SPECRAIL MODEL S4-SAYBROOK OR EQUAL.
2. FENCE SHALL BE INSTALLED AS REQUIRED BY MANUFACTURER'S SPECIFICATIONS.

POOL AREA FENCE
NOT TO SCALE



1. 1 5/8" O.D. TOP RAIL ATTACHED TO THE C.L. FABRIC WITH 9 GAUGE WIRE CLIP EVERY 24"
2. 1 5/8" O.D. BRACE TAIL FENCES OVER 6 FEET HIGH AND ALL FENCES WITHOUT TOP RAIL
3. 3/16" TRUSS ROD AND TURNBUCKLE
4. INTERMEDIATE POST

FENCE HEIGHT	SQUARE POST	ROUND POST
6 FEET AND LESS	1 7/8"	2"
OVER 6 FEET	2 1/2"	2 1/2"

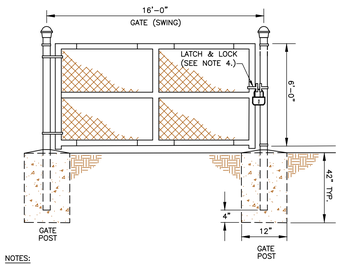
ATTACH TO C.L. FABRIC WITH CLIPS EVERY 15"

5. END OR CORNER POST

FENCE HEIGHT	SQUARE POST	ROUND POST
6 FEET AND LESS	2"	2 1/2"
OVER 6 FEET	2 1/2"	3"

6. 6 GAUGE BOTTOM TENSION WIRE ATTACHED TO C.L. FABRIC WITH HOG RING AT 24" C.C.
7. TENSION ROD ATTACHED TO END OR CORNER POST
8. CONCRETE FOOTING 36: DEEP WITH 12" DIA. AT END POST AND 10" DIA. AT INTERMEDIATE POST. HOLE CORE IN UNDISTURBED OR COMPACTED SOIL.
9. TOP RAIL
10. FABRIC SELVAGE UNDER 6 FEET SHALL BE KNUCKLES TOP AND BOTTOM 6 FEET AND OVER SHALL BE KNUCKLES BOTTON AND TWISTED ON THE TOP RECREATIONAL FENCING, REGARDLESS OF HEIGHT, SHALL BE KNUCKLED TOP AND BOTTOM.
11. OPEN MESH POLYPROPYLENE TENNIS COURT SCREEN

TENNIS COURT CHAIN LINK FENCE
NOT TO SCALE



NOTES:
1. POST SPACING SHOULD BE EQUIDISTANT AND NOT EXCEED A MAXIMUM OF 10 FT. O.C.
2. MINIMUM GATE POST SIZE = 3-1/2" O.D.
   HORIZ. BRACE*
   * FOR FENCES 5'-0" AND TALLER, A HORIZONTAL OR DIAGONAL BRACE, OR BOTH, IS TO BE USED FOR STABILITY.
3. ALL CHAIN LINK FENCE COMPONENTS SUCH AS FABRIC, POSTS, RAILS, ETC. SHALL BE BLACK PVC COATED.
4. GATE TO BE LOCKED WITH LOCK SUPPLIED BY THE TOWN OF WAPPINGER EMERGENCY SERVICES, AND KEYS TO BE DISTRIBUTED AS APPROPRIATE BY OTHERS.

EMERGENCY ACCESS GATE DETAIL
NOT TO SCALE

REVISIONS

DATE:	DESCRIPTION:

POVALL ENGINEERING, PLLC

WILLIAM H. POVALL III, P.E.
N.Y.S.P.E. LICENSE #075020

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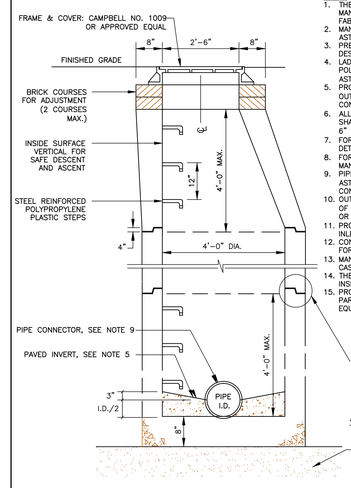
HILLTOP VILLAGE AT WAPPINGER

SITE DETAILS

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: AS SHOWN
D-2
SHEET 24 OF 29

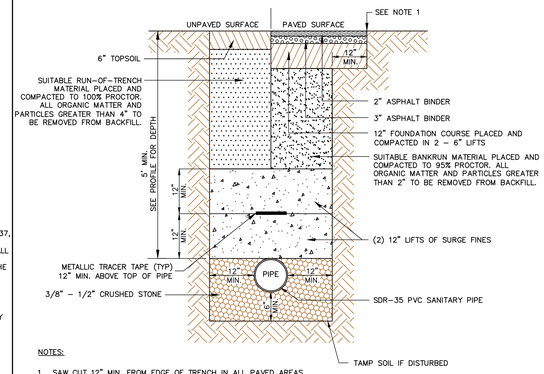


NOTES:

1. THE CONTRACTOR SHALL SUBMIT SHOP DWG. FOR EACH MANHOLE FOR THE ENGINEERS APPROVAL PRIOR TO FABRICATION.
2. MANHOLE SHALL BE CERTIFIED AS CONFORMING TO ASTM-C478 LATEST REVISION.
3. PRECAST MANHOLE, FRAME, AND GRATE SHALL BE DESIGNED FOR H-20 LOADING.
4. LADDER RUNGS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS IN CONFORMANCE WITH ASTM C-478, 12" TO BOTTOM.
5. PROVIDE PAVED INVERT CONNECTING INFLOWING AND OUTFLOWING PIPES WITH 3" MIN. DROP, 3500 PSI CONCRETE.
6. ALL BACKFILL WITHIN 12" OF OUTSIDE MANHOLE WALLS SHALL APPROVED RUN-OF-BANK GRAVEL COMPACTED IN 6" LIFTS.
7. FOR DROP GREATER THAN 2'-0" SEE DROP CONNECTION DETAIL.
8. FOR MANHOLE DEPTHS 4' OR LESS SEE SHALLOW MANHOLE DETAIL.
9. PIPE CONNECTIONS TO MANHOLE SHALL CONFORM TO ASTM-C923, AND FITTED WITH AN "A-LOK" FLEXIBLE CONNECTOR OR EQUAL.
10. OUTSIDE OF MANHOLE SHALL BE COATED WITH 2 COATS OF ASPHALT BASE FOUNDATION COATING: PASSANNO #7037, OR APPROVED EQUAL.
11. PROVIDE PIPE JOINT WITHIN 3' TO 5' OF MANHOLE ON ALL INLET AND OUTLET PIPING.
12. CONCRETE MANHOLE SHALL BE AS MANUFACTURED BY THE FORT MILLER COMPANY.
13. MANHOLE COVER TO HAVE THE TERM "SANITARY SEWER" CAST INTO COVER.
14. THE FRAME AND COVER SHALL BE THOROUGHLY PARGED INSIDE AND OUT.
15. PROVIDE PLASTIC MANHOLE INSERT AS MANUFACTURED BY PARSON ENVIRONMENTAL PRODUCTS, INC OR APPROVED EQUAL.

SANITARY SEWER MANHOLE

NOT TO SCALE

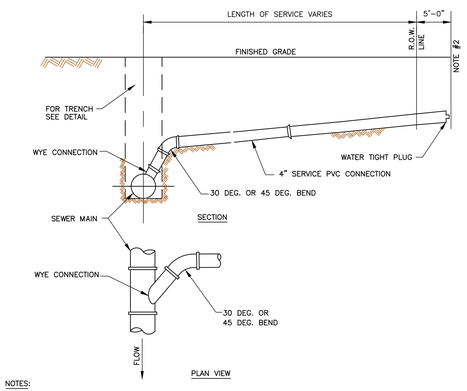


NOTES:

1. SAW CUT 12" MIN. FROM EDGE OF TRENCH IN ALL PAVED AREAS.
2. PAVEMENT SECTION IN AREAS OF NEW CONSTRUCTION SHALL CONFORM TO TYPICAL PAVEMENT SECTION.
3. BACKFILL MATERIAL UNDER PAVED SURFACES SHALL BE RUN-OF-BANK (R.O.B.) GRAVEL AND BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 6 INCHES IN THICKNESS PRIOR TO COMPACTION. ALL COMPATION SHALL BE TO A MINIMUM 95% OF STANDARD PROCTOR MAXIMUM DENSITY. NO STONE GREATER THAN 3 INCHES IN SIZE SHALL BE PLACED IN TRENCH.
4. BACKFILL MATERIAL UNDER UNPAVED SURFACES SHALL BE RUN-OF-TRENCH MATERIAL AND BE PLACED IN HORIZONTAL LIFTS NOT EXCEEEDING 6 INCHES IN THICKNESS PRIOR TO COMPLATION. IF EXCAVATED MATERIAL IS UNSUITABLE FOR BACKFILLING, R.O.B. GRAVEL SHALL BE USED. NO STONE GREATER THAN 6" IN SIZE SHALL BE PLACED IN TRENCH.
5. WHEN PLACING FILL OR BACKFILL AROUND CULVERTS AND PIPES, LIFTS SHALL BE PLACED TO PROGRESSIVELY BURY THE PIPE OR CULVERT TO EQUAL.

SANITARY SEWER TRENCH DETAIL

NOT TO SCALE

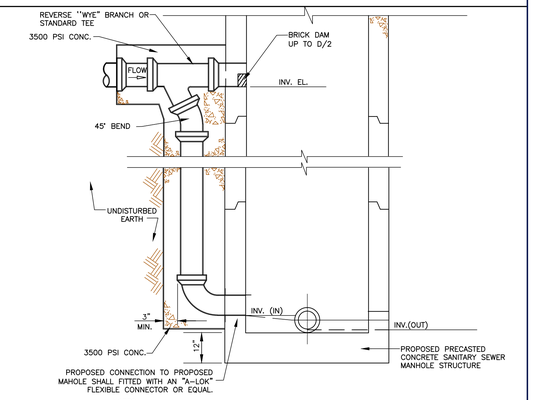


NOTES:

1. SANITARY SEWER SERVICE SHALL BE INSTALLED AT A GRADE OF NOT LESS THAN 1/4" PER FOOT.
2. PLUG END OF PIPE & MARK TO GRADE WITH TREATED 2"X4" POST UNTIL PERMANENT CONNECTION.

SANITARY SEWER HOUSE SERVICE CONNECTION

NOT TO SCALE

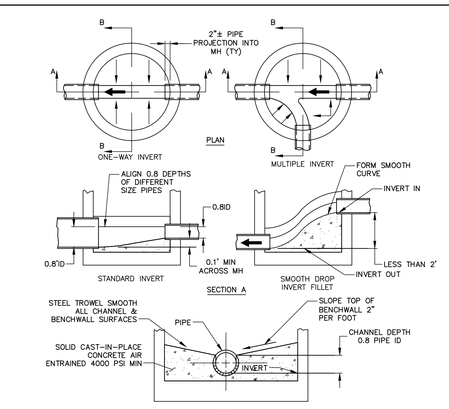


NOTES:

1. SEE SANITARY SEWER MANHOLE DETAIL, HEREON, FOR ADDITION REQUIREMENTS AND STANDARDS FOR THE PRECAST SANITARY MANHOLE

SANITARY DROP CONNECTION DETAIL

NOT TO SCALE

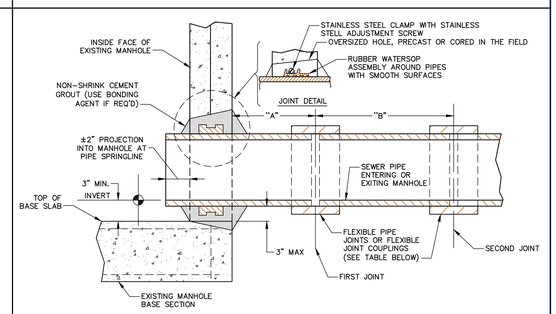


NOTE:

1. INLET AND OUTLET OF PIPES SHOWN ON PLAN VIEW OF BASE ARE NOT NECESSARILY TYPICAL OF ALL MANHOLES. REFER TO UTILITY PLAN FOR INLET AND OUTLET DIRECTIONS.

INVERT, CHANNEL AND BENCHWALLS

NOT TO SCALE



FLEXIBLE JOINT & WATERSTOP REQUIREMENTS				
SEWER PIPE	FLEXIBLE JOINT TYPE IN & OUT	"A" DISTANCE (FT)	"B" DISTANCE (FT)	MH WATER STOP REQ'D
DUCTILE IRON	STD RUBBER GASKET PIPE JOINT ONLY	10' MAX	NO LIMIT	YES
PVC	SPECIAL FLEXIBLE JOINT COUPLING	1' MAX	3' MAX	YES

NOTES:

1. THIS DETAIL SHALL BE USED AT NO EXTRA COST IN PLACE OF EITHER OF THE PIPE-TO-MANHOLE CONNECTION DETAILS ONLY WHEN CONNECTING TO EXISTING MANHOLES THAT HAVE NO FLEXIBLE RUBBER BOOT PROVIDED.
2. REFERENCE MANHOLE DETAIL(S) FOR REQUIRED INVERT CHANNEL CONFIGURATION.

PIPE CONNECTION TO EXISTING MANHOLE- CEMENT GROUT SEAL WITH WATER STOP

NOT TO SCALE

REVISIONS

DATE:	DESCRIPTION:

POVALL ENGINEERING, PLLC

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HILLTOP VILLAGE AT WAPPINGER

SANITARY SEWER DETAILS

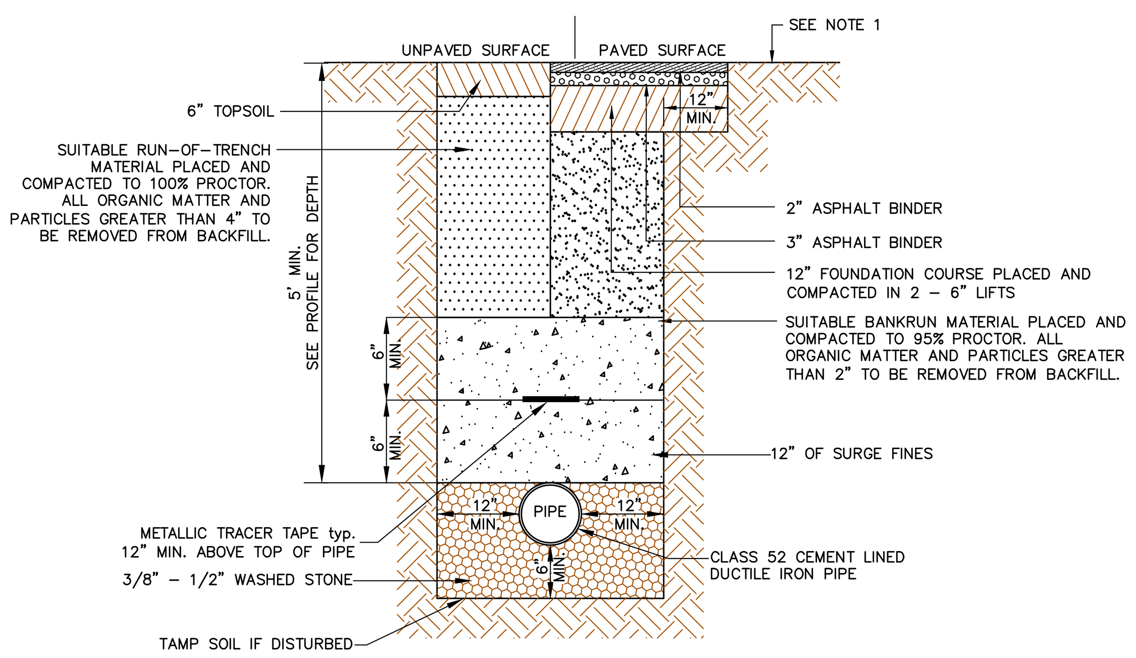
TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552

DATE: 09/30/11

SCALE: AS SHOWN

D-3

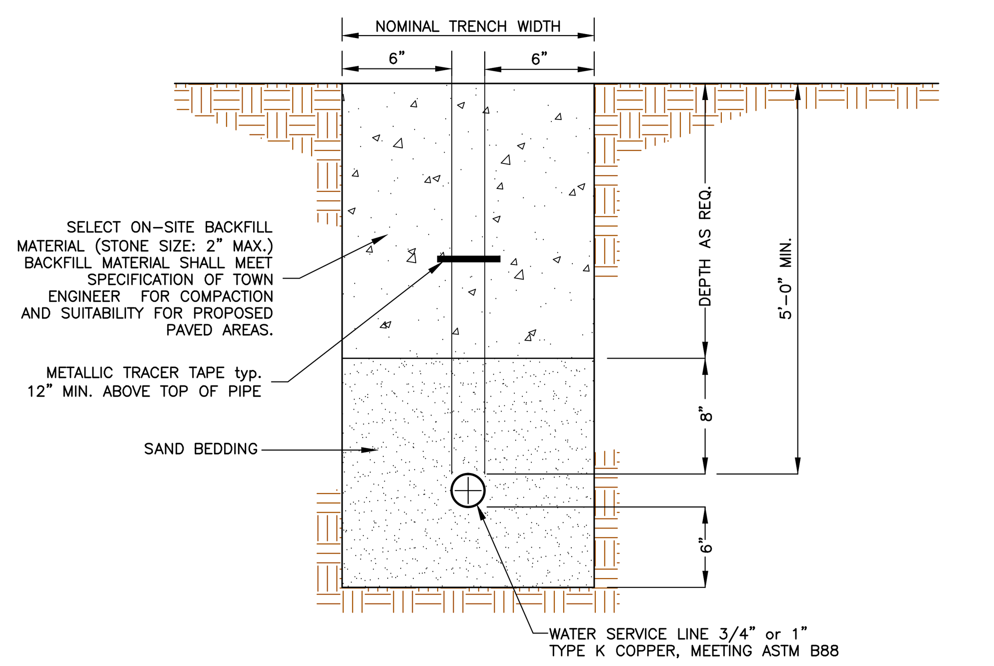


NOTES:

1. SAW CUT 12" MIN. FROM EDGE OF TRENCH IN ALL PAVED AREAS.
2. AS FIELD CONDITIONS WARRANT, THE ENGINEER AND/OR HIGHWAY SUPERINTENDENT MAY REQUIRE FOUNDATION STONE, AND/OR RUN–OF–BANK GRAVEL BACKFILL IF UNACCEPTABLE OR INSUFFICIENT RUN–OF–TRENCH IS ENCOUNTERED.

NOTES:
1. ALL DUCTILE IRON PIPE FITTINGS SHALL MEET A.W.W.A. STANDARD 153/A21.53–94.
2. THE CONTRACTOR SHALL BE RESPONSIBLE, TO PROVIDE FOR THE DURATION OF THE PROJECT: FLAGMEN, BARRICADES, SIGNS, ETC., FOR THE SAFE AND SMOOTH TRAFFIC PASSAGE IN THE PROJECT AREA.
3. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE EXISTENCE OF ALL ABOVE ROUND AND UNDERGROUND UTILITIES IN THE PROJECT AREA, PRIOR TO COMMENCEMENT OF PROJECT.
4. HYDROSTATIC PRESSURE TESTS SHALL BE PERFORMED ON ALL WATER MAIN IN ACCORDANCE WITH THE LATEST A.W.W.A. STANDARDS, C–600. THE HYDROSTATIC PRESSURE TEST SHALL BE PERFORMED AT 150 PSI MINIMUM FOR A 2 HOUR DURATION, MINIMUM. THE PRESSURE TEST SHALL BE MADE IN THE PRESENCE OF THE TOWN ENGINEER OR TOWN WATER SYSTEM OPERATOR.
5. ALL WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH A.W.W.A. C651 AND ALL OTHER HEALTH DEPT. REQUIREMENTS, EXCEPT THAT THE REQUIREMENTS OF SECTION 5.1 SHALL NOT BE FOLLOWED RELATIVE TO THE USE OF TABLETS, BUT DISINFECTION WILL BE ACCOMPLISHED BY MEANS OF A POSITIVE DISPLACEMENT POCHLORITE PUMP.
6. ALL DUCTILE PIPE SHALL CONFORM TO A.W.W.A. SPECIFICATIONS C600 LATEST REVISION FOR THE INSTALLATION OF DUCTILE IRON MAINS.
7. ALL PIPE FITTING SHALL USE "FIELD–LOC" GASKETS.

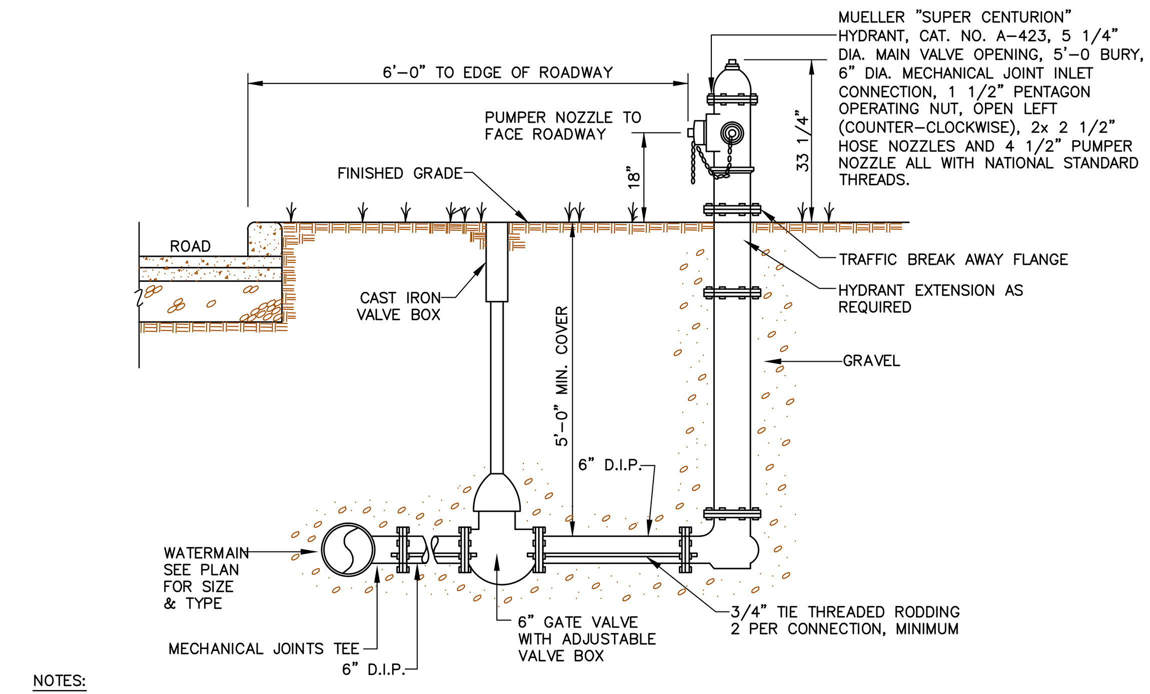
WATER MAIN TRENCH DETAIL
NOT TO SCALE



NOTES:

1. ALL BACKFILL AND PAVEMENT MATERIAL SHALL BE APPROVED BY THE TOWN HIGHWAY SUPERINTENDENT AND/OR TOWN ENGINEER PRIOR TO PLACEMENT. AS FIELD CONDITIONS WARRANT, THE ENGINEER AND/OR HIGHWAY SUPERINTENDENT MAY REQUIRE FOUNDATION STONE, AND/OR RUN–OF–BANK GRAVEL BACKFILL IF UNACCEPTABLE OR INSUFFICIENT TRENCH MATERIAL IS ENCOUNTERED.

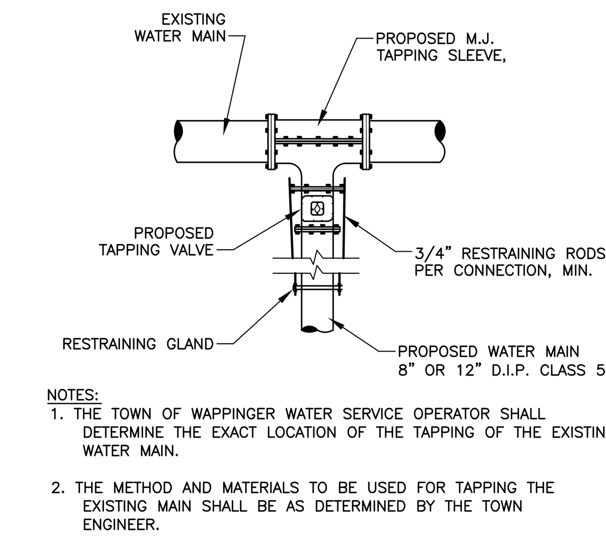
TYPICAL WATER SERVICE TRENCH DETAIL
NOT TO SCALE



NOTES:

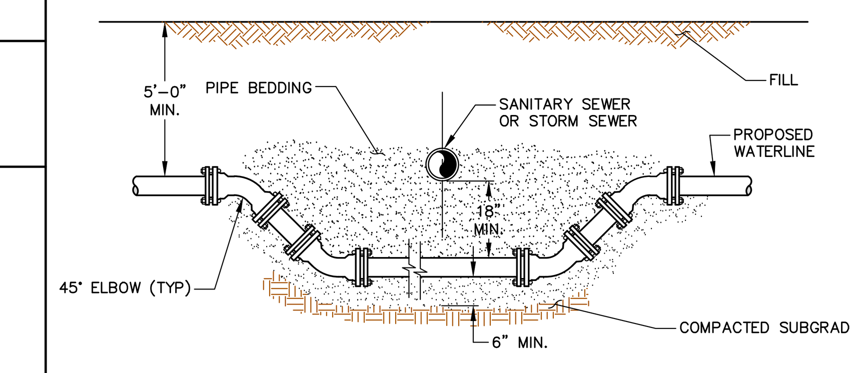
1. THE USE OF CONCRETE THRUST BLOCKS FOR THE PURPOSE OF RESTRAINING HYDRANTS, TEES, ELBOWS, ETC. IS PROHIBITED. ALL CONNECTIONS TO BE MECHANICAL JOINTS WITH "MEGA–LUG" RETAINER GLANDS. CONNECTIONS SHALL ALSO BE RODDED AS DETAILED ABOVE.
2. HYDRANT COLOR TO BE APPROVED BY THE TOWN WATER SYSTEM OPERATORS (CAMO POLLUTION CONTROL, INC.).

HYDRANT DETAIL
NOT TO SCALE



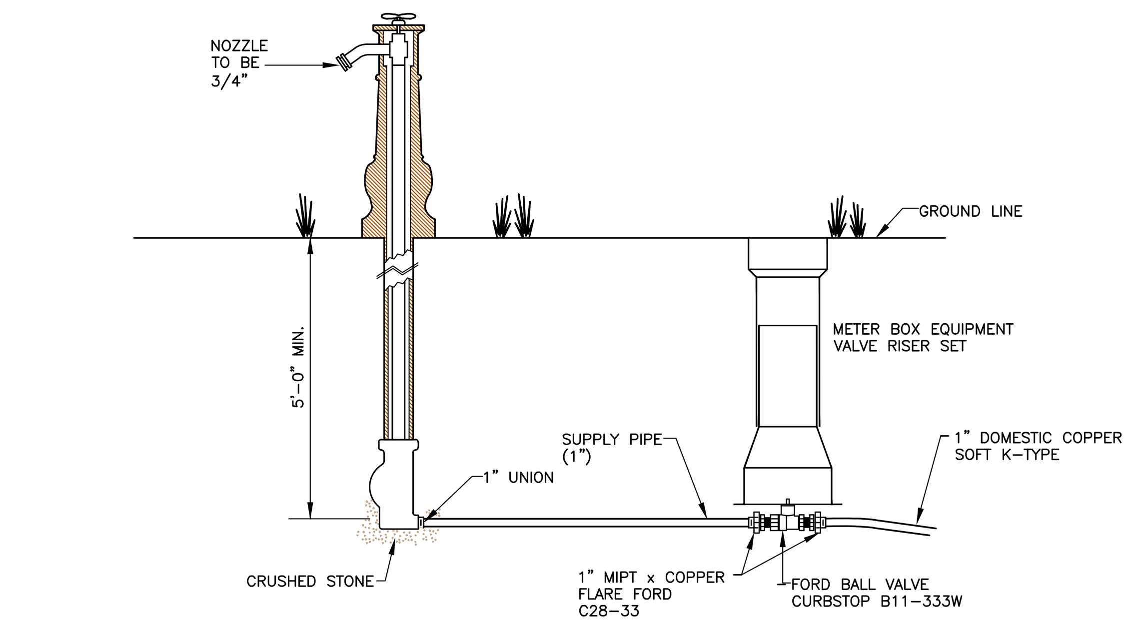
NOTES:
1. THE TOWN OF WAPPINGER WATER SERVICE OPERATOR SHALL DETERMINE THE EXACT LOCATION OF THE TAPPING OF THE EXISTING WATER MAIN.
2. THE METHOD AND MATERIALS TO BE USED FOR TAPPING THE EXISTING MAIN SHALL BE AS DETERMINED BY THE TOWN ENGINEER.

TYPICAL WATER MAIN TAPPING DETAIL
NOT TO SCALE



NOTES:
1. WHEN THE ELEVATION OF THE SEWER CAN NOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS REQUIRED SEPARATION OR RECONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN (10) FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER AS POSSIBLE.
2. WHEN IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS INDICATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT CAST IRON PIPE AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS, OR ENCASED IN CONCRETE IN ACCORDANCE WITH NYS HEALTH DEPARTMENT REQUIREMENTS.

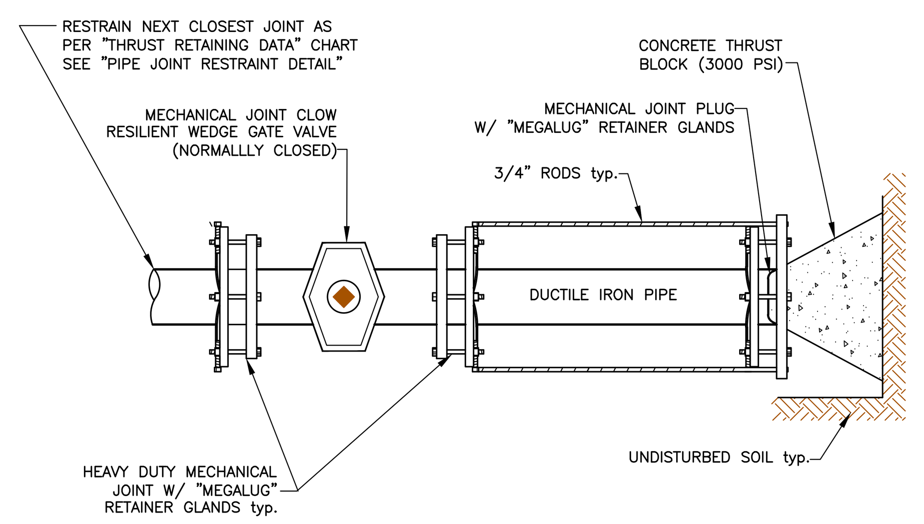
WATERLINE OFFSET
NOT TO SCALE



NOTES:

1. YARD HYDRANTS SHALL BE TOTAL ECLIPSE #1 YARD HYDRANTS AS MANUFACTURED BY JOHN C. KUPFERLE FOUNDRY CO., ST. LOUIS, MO. OR APPROVED EQUAL
2. YARD HYDRANTS SHALL BE SELF–DRAINING, NON–FREEZING, COMPRESSION TYPE. INLET CONNECTION SHALL BE 1" IP. OUTLET SHALL BE 3/4" IP OR GHT.
3. YARD HYDRANTS SHALL HAVE A STEEL PIPE RISER WITH A CAST IRON CASING GUARD. PRINCIPAL INTERIOR OPERATING PARTS SHALL BE BRASS AND REMOVABLE FROM YARD HYDRANT FOR SERVICING WITHOUT EXCAVATION.
4. YARD HYDRANTS SHALL BE SET IN 4 CUBIC FEET OF CRUSHED STONE TO ALLOW FOR PROPER DRAINAGE. RECOMMENDATIONS OF THE AWWA SHOULD BE FOLLOWED WHEN INSTALLING THE YARD HYDRANT.

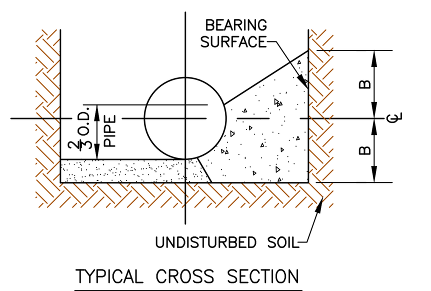
YARD HYDRANT DETAIL
NOT TO SCALE



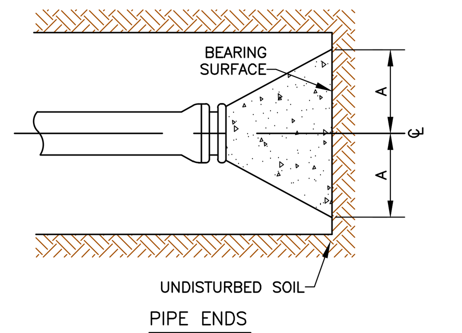
NOTES:

1. BEDDING AND BACKFILL SHALL BE AS PER TYPICAL TRENCH DETAILS & SPECIFICATIONS.
2. PLUG SHALL BE COVERED WITH BURLAP OR POLYETHYLENE TO PREVENT THE CONCRETE FROM BONDING TO THE PIPE.
3. THE LENGTH OF THE DEAD END STUB SHALL BE DETERMINE BY THE TOWN ENGINEER.

DEAD–END TEE & STUB WATER DETAIL
NOT TO SCALE



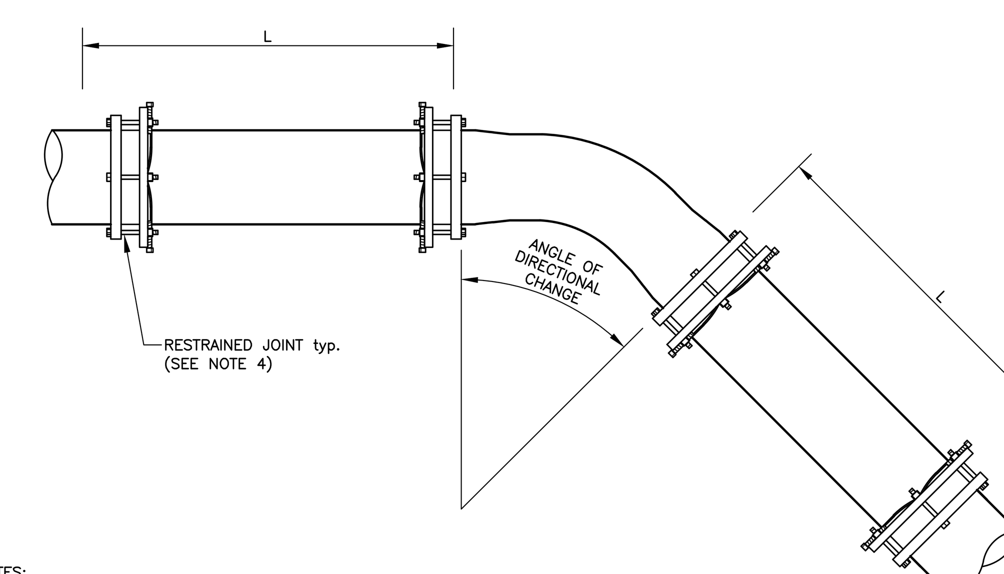
TYPICAL CROSS SECTION



PIPE ENDS

THRUST BLOCK SIZE IN INCHES		
PIPE SIZE	PLUG & TEES	
	A	B
8"	20"	16"
12"	40"	23"
STANDARD THRUST BLOCK BASED ON 200 P.S.I. WATER PRESSURE TEST AGAINST 1500 P.S.F. SOIL.		

THRUST BLOCK DETAIL
NOT TO SCALE



NOTES:

1. ALL JOINTS THAT FALL WITHIN THE MINIMUM LENGTH "L" BEFORE AND AFTER THE ELBOW MUST BE RESTRAINED IF NO JOINTS ARE ENCOUNTERED WITHIN THIS DISTANCE, THE NEXT CLOSEST JOINT DOES NOT NECESSARILY HAVE TO BE RESTRAINED
2. MINIMUM LENGTH "L" MAY CHANGE DUE TO VARYING SOIL CONDITIONS OR AT THE DISCRETION OF THE ENGINEER.
3. VALUES OF "L" ARE BASED ON DUCTILE IRON PIPE AT 250 PSI PRESSURE.
4. THE FOLLOWING MUST BE RESTRAINED IN ALL APPLICATIONS:
   (A) BEND (INLET & OUTLET)
   (B) TEE (OUTLET BRANCH)
   (C) WYE (OUTLET BRANCH)
   (D) OFFSETS (INLET & OUTLET)
   (E) CAPS & PLUGS

THRUST RESTRAINING DATA
APPROXIMATE THRUST AT FITTINGS PER 250 psi PRESSURE (LBS. FORCE)

NOM. PIPE SIZE inches	FITTING 90° ELBOW	FITTING 45° ELBOW	CLOSED VALVES, & DEAD ENDS
3	3,500	2,100	2,800
4	6,300	3,850	4,550
6	14,000	8,050	10,150
8	25,150	14,350	17,800
10	39,150	22,000	27,600
12	55,900	31,800	39,500
16	X	X	X

L = MINIMUM LENGTH TO BE RESTRAINED ON EACH SIDE OF FITTING (FT)

NOM. PIPE SIZE inches	GRAVEL				CLOSED VALVES, & DEAD ENDS
	ELBOWS (DEG)				
	11¼° BEND	22½° BEND	45° BEND	90° BEND	
3	1	2	5	12	33
4	2	3	6	15	39
6	2	4	8	20	56
8	3	6	12	28	73
10	3	7	14	33	89
12	4	7	15	37	104
16	5	10	21	50	X

MECHANICAL JOINT RESTRAINT SAMPLE SPECIFICATIONS

RESTRAINT DEVICES FOR MECHANICAL JOINT FITTINGS AND APPURTENANCES CONFORMING TO EITHER ANSI/AWWA C111/A21.11 OR ANSI/AWWA C153/A21.53, SHALL CONFORM TO THE FOLLOWING:

DESIGN
1. RESTRAINT DEVICES FOR NOMINAL PIPE SIZES 3 INCH THROUGH 48 INCH SHALL CONSIST OF MULTIPLE GRIPPING WEDGES INCORPORATED INTO A FOLLOWER GLAND MEETING THE APPLICABLE REQUIREMENTS OF ANSI/AWWA C110/A21.10.
2. THE DEVICES SHALL HAVE A WORKING PRESSURE RATING OF 350 PSI FOR 3–16 INCH AND 250 PSI FOR 18–48 INCH. RATINGS ARE FOR WATER PRESSURE AND MUST INCLUDE A MINIMUM SAFETY FACTOR OF 2 TO 1 IN ALL SIZES.

MATERIAL
1. GLAND BODY, WEDGES AND WEDGE ACTUATING COMPONENTS SHALL BE CAST FROM GRADE 65–45–12 DUCTILE IRON MATERIAL IN ACCORDANCE WITH ASTM A536.
2. DUCTILE IRON GRIPPING WEDGES SHALL BE HEAT TREATED WITHIN A RANGE OF 370 TO 470 BHN.
3. THREE (3) TEST BARS SHALL BE INCREMENTALLY POURED PER PRODUCTION SHIFT AS PER UNDERWRITER'S LABORATORY (U.L.) SPECIFICATIONS AND ASTM A536. TESTING FOR TENSILE, YIELD AND ELONGATION SHALL BE DONE IN ACCORDANCE WITH ASTM E8.
4. CHEMICAL AND NODULARITY TESTS SHALL BE PERFORMED AS RECOMMENDED BY THE DUCTILE IRON SOCIETY ON A PER LADLE BASIS.

TRACEABILITY
1. AN IDENTIFICATION NUMBER CONSISTING OF YEAR, DAY, PLANT AND SHIFT (YYDD)(PLANT DESIGNATION)(SHIFT NUMBER) SHALL BE CAST INTO EACH GLAND BODY.
2. ALL PHYSICAL AND CHEMICAL TEST RESULTS SHALL BE RECORDED SUCH THAT THEYCAN BE ACCESSED VIA THE IDENTIFICATION NUMBER ON THE CASTING. THESE MATERIAL TRACEABILITY RECORDS (MTR's) ARE TO BE MADE AVAILABLE IN HARD COPY TO THE PURCHASER THAT REQUESTS SUCH DOCUMENTATION AND SUBMITS HIS GLAND BODY IDENTIFICATION NUMBER.
3. PRODUCTION PIECES THAT ARE TOO SMALL TO ACCOMMODATE INDIVIDUAL NUMBERING, SUCH AS FASTENERS AND WEDGES, SHALL BE CONTROLLED IN SEGREGATE INVENTORY UNTIL SUCH TIME AS ALL QUALITY CONTROL TESTS ARE PASSED. THESE COMPONENT PARTS MAY THEN BE RELEASED TO A GENERAL INVENTORY FOR FINAL ASSEMBLY AND PACKAGING.
4. ALL COMPONENTS SHALL BE MANUFACTURED AND ASSEMBLED IN THE UNITED STATES. THE PURCHASER SHALL, WITH REASONABLE NOTICE, HAVE THE RIGHT TO PLANT VISITATION AT HIS/HER EXPENSE.

INSTALLATION
1. MECHANICAL JOINT RESTRAINT SHALL REQUIRE CONVENTIONAL TOOLS AND INSTALLATION PROCEDURES PER AWWA C600 WHILE RETAINING FULL MECHANICAL JOINT DEFLECTION DURING ASSEMBLY AS WELL AS ALLOWING JOINT DEFLECTION AFTER ASSEMBLY.
2. PROPER ACTUATION OF THE GRIPPING WEDGES SHALL BE ENSURED WITH TORQUE LIMITING TWIST OFF NUTS.

APPROVALS
1. RESTRAINT DEVICES SHALL BE LISTED BY UNDERWRITERS LABORATORIES (3" THROUGH 24" SIZE) AND APPROVED BY FACTORY MUTUAL (3" THROUGH 12" SIZE).
2. MECHANICAL JOINT RESTRAINT SHALL BE MEGALUG SERIES 1100 PRODUCED BY EBAA IRON INC. OR APPROVED EQUAL.

MEGA–BOND™ RESTRAINT COATING SYSTEM
COATING FOR RESTRAINT DEVICES SHALL CONSIST OF THE FOLLOWING:

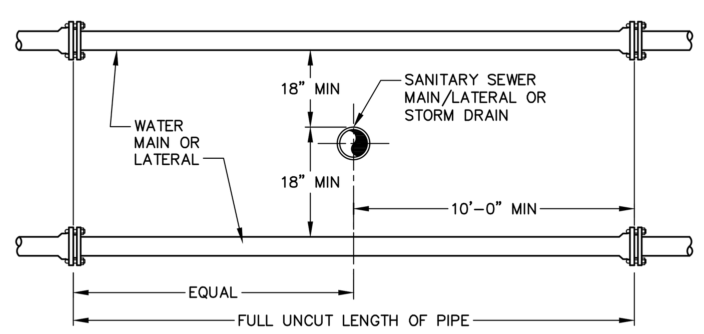
ALL WEDGE ASSEMBLIES AND RELATED PARTS SHALL BE PROCESSED THROUGH A PHOSPHATE WASH, RINSE AND DRYING OPERATION PRIOR TO COATING APPLICATION. THE COATING SHALL CONSIST OF A MINIMUM OF TWO COATS OF LIQUID XYLAN→FLUOROPOLYMER COATING WITH HEAT CURE TO FOLLOW EACH COAT.

ALL CASTING BODIES SHALL BE SURFACE PRETREATED WITH A PHOSPHATE WASH, RINSE AND SEALER BEFORE DRYING. THE COATING SHALL BE ELECTROSTATICALLY APPLICED AND HEAT CURED. THE COATING SHALL BE A POLYESTER BASED POWDER TO PROVIDE CORROSION, IMPACT AND UV RESISTANCE.

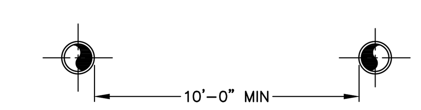
THE COATING SYSTEM SHALL BE MEGA–BOND BY EBAA IRON, INC. OR APPROVED EQUAL. REQUESTS FOR APPROVED EQUAL MUST SUBMIT COATING MATERIAL AND PROCESS DETAILS FOR REVIEW PRIOR TO BID.

Xylan is a registered trademark of the Whitford Corporation.

WATER MAIN PIPE JOINT RESTRAINT DETAIL
NOT TO SCALE



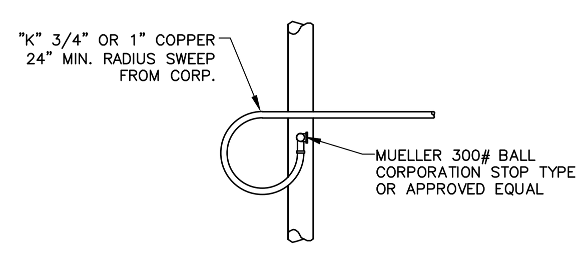
VERTICAL SEPARATION



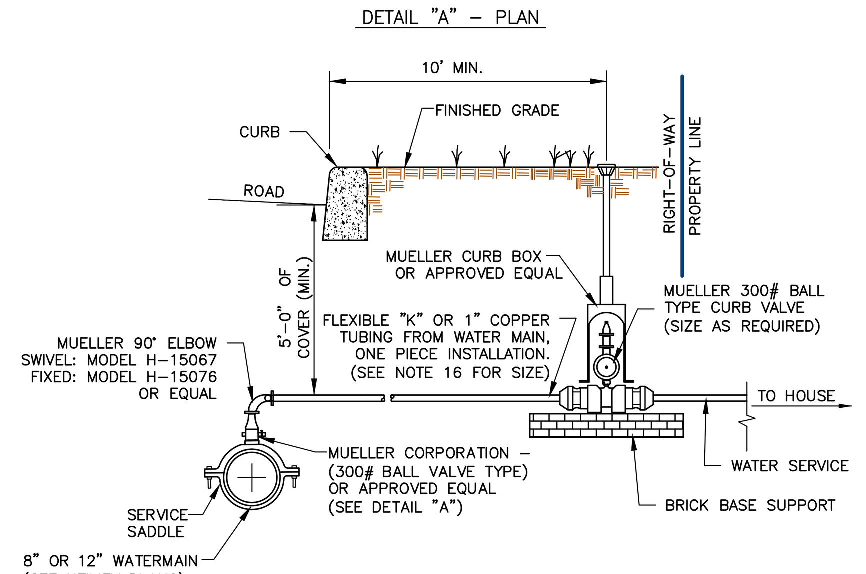
HORIZONTAL SEPARATION

NOTES:
1. IF 18" VERTICAL SEPARATION CANNOT BE ACHIEVED AT LOCATIONS OF WATER MAIN & SEWER CROSSINGS, CONTRACTOR SHALL CONSTRUCT EITHER OF THE FOLLOWING OPTIONS:
   A. CONSTRUCT SEWER OF PVC PRESSURE PIPE MATERIAL 10' ON EACH SIDE OF THE WATER MAIN/SEWER.
   B. ENCASE SEWER PIPE IN CONCRETE, 4' DISTANCE ON EACH SIDE OF WATER MAIN/SEWER CROSSING. CONCRETE ENCASEMENT SHALL BE MINIMUM 6" ALL AROUND PROPOSED SEWER PIPE.
2. IF 10' HORIZONTAL SEPARATION CANNOT BE ACHIEVED AT LOCATIONS OF WATER MAIN & SEWER CROSSINGS, THE CONTRACTOR SHALL CONSTRUCT EITHER OF THE FOLLOWING OPTIONS:
   A. THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THE 10' HORIZONTAL SEPARATION OR RECONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN (10) FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER AS POSSIBLE (REFER TO THE WATER LINE OFFSET DETAIL).
   B. BOTH THE WATER MAIN AND SEWER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT CAST IRON PIPE AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS, OR ENCASED IN CONCRETE IN ACCORDANCE WITH THE NYS HEALTH DEPARTMENT REQUIREMENTS.

WATER & SANITARY/STORM SEPARATION REQUIREMENTS
NOT TO SCALE



DETAIL "A" – PLAN



NOTES:

1. ALL FITTINGS SHALL BE COPPER AND COMPRESSION TYPE. ALL VALVES & FITTINGS SHALL CONFORM TO AWWA C800, LATEST REVISION.
2. A SERVICE SADDLE SHALL BE USED ON ALL CONNECTIONS TO EXISTING WATERMAIN. THE SIZE AND TYPE OF THE EXISTING WATERMAIN SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR/DEVELOPER PRIOR TO ORDERING OF SERVICE SADDLE.
3. SERVICE TAPS AND ALL BACKFILLING SHALL CONFORM TO AWWA C600, LATEST REVISION.
4. SERVICE LINES TO BE DISINFECTED IN ACCORDANCE WITH AWWA C651, LATEST REVISION.
5. SERVICE LINES SHALL BE OF CONTINUOUS LENGTH AND ALL FITTINGS SHALL BE CHECKED FOR LEAKS PRIOR TO BACKFILLING.
6. CURB BOXES SHALL HAVE FOOTINGS AND FOOT PIECES.
7. A WATER METER 5/8" MINIMUM SIZE, CONFORMING TO AWWA STANDARDS, SHALL BE INSTALLED, ALONG WITH A WATTS NO. 7 SERIES DUAL CHECK VALVE BACKFLOW PREVENTION DEVICE OR EQUAL.
8. A PRESSURE REDUCING VALVE (SET TO 60 PSI MAXIMUM) MUST BE INSTALLED IF THE PRESSURE AT THE METER IS GREATER THAN 60 PSI.
9. CORPORATION COCKS SHOULD BE INSTALLED AT THE TWELVE O'CLOCK POSITION.
10. COPPER SERVICE LINES SHALL BE WRAPPED WITH POLYETHYLENE OR SUITABLE DIELECTRIC TAPE FOR A MINIMUM DISTANCE OF THREE FEET FROM THE MAIN.
11. SERVICE LINES SHALL BE MINIMUM 3/4" SIZE K–COPPER, MEETING ASTM B88
12. SERVICE LINE SHOULD BE BENT IN A SMOOTH CIRCULAR FASHION W/ MINIMUM DIAMETER OF 36"
13. BACKFILL ALL AREAS IN ACCORDANCE WITH THE APPROPRIATE TRENCH DETAIL.
14. BEFORE ISSUANCE OF A C.O., MEASUREMENTS BETWEEN THE VALVE BOX COVER AND HOUSE CORNERS SHALL BE SUBMITTED TO THE TOWN.
15. ALL FITTING TO BE COMPRESSION TYPE.

HOUSE WATER SERVICE CONNECTION DETAIL
NOT TO SCALE

REVISIONS	
DATE:	DESCRIPTION:

POVALL ENGINEERING, PLLC

WILLIAM H. POVALL III, P.E.
N.Y.S.P.E. LICENSE #075020

25 CORPORATE PARK DR., SUITE C
HOPEWELL JUNCTION, NY 12533

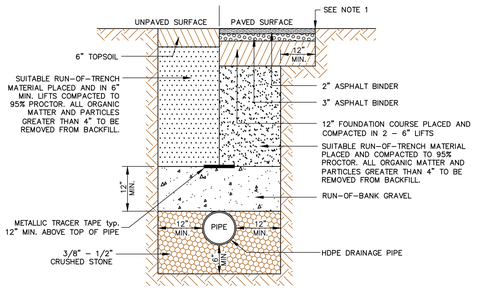
TEL.: (845) 897-8205
FAX: (845) 897-0042

HILLTOP VILLAGE AT WAPPINGER

POTABLE WATER DETAILS

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

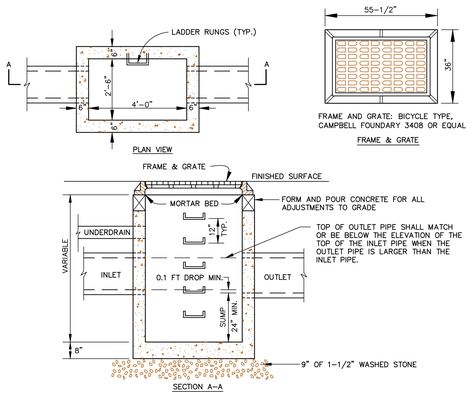
JOB #: 0552
DATE: 09/30/11
SCALE: AS SHOWN
D-4



NOTES:

1. SAW CUT 12" MIN. FROM EDGE OF TRENCH IN ALL PAVED AREAS.
2. PAVEMENT SECTION IN AREAS OF NEW CONSTRUCTION SHALL CONFORM TO TYPICAL PAVEMENT SECTION.
3. WHEN PLACING FILL OR BACKFILL AROUND CULVERTS AND PIPES, LIFTS SHALL BE PLACED TO PROGRESSIVELY BURY THE PIPE OR CULVERT TO EQUAL DEPTHS ON BOTH SIDES.
4. BACKFILL MATERIAL UNDER PAVED AND UNPAVED SURFACES SHALL BE RUN-OF-TRENCH MATERIAL AND BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 6 INCHES IN THICKNESS PRIOR TO COMPACTION. IF EXCAVATED MATERIAL IS UNSUITABLE FOR BACKFILLING, R.O.B GRAVEL SHALL BE USED. NO STONE GREATER THAN 4" INCHES IN SIZE SHALL BE PLACED IN TRENCH.
5. TRENCH EXCAVATION SHALL CONFORM TO AWWA STANDARDS AS WELL AS OSHA REQUIREMENTS.
6. IF UNSUITABLE MATERIAL IS FOUND AT BOTTOM OF TRENCH, AN APPROVED MEANS OF SUPPORTING THE PIPE SHALL BE IMPLEMENTED SUBJECT TO APPROVAL BY THE TOWN ENGINEER.
7. RUN-OF-TRENCH BACKFILL SHALL BE FREE FROM COBBLES, FROZEN SOIL OR ANY ORGANIC MATERIAL
8. CRUSHED STONE SHALL BE INSTALLED IN 6" (MAXIMUM) LIFTS AND MECHANICALLY COMPACTED.

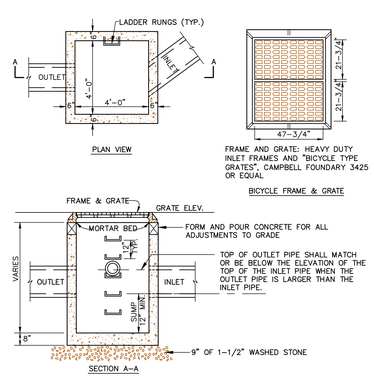
STORM DRAINAGE PIPE TRENCH DETAIL
NOT TO SCALE



NOTES:

1. PRECAST CATCH BASIN, FRAME, AND GRATE SHALL BE DESIGNED FOR H-20 LOADING.
2. PRECAST CONCRETE TOP WITH FRAME AND GRATE MAY NOT BE USED.
3. LADDER RUNGS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS IN CONFORMANCE WITH ASTM C-478, 12" TO BOTTOM.
4. ALL PIPES SHALL BE LAID OR CUT FLUSH WITH THE INSIDE OF THE CATCHBASIN WALL AND SHALL BE FIRMLY PARGED IN PLACE, BOTH INSIDE AND OUTSIDE.
5. BACKFILL SHALL BE SELECT FILL COMPACTED IN 6 " LIFTS.

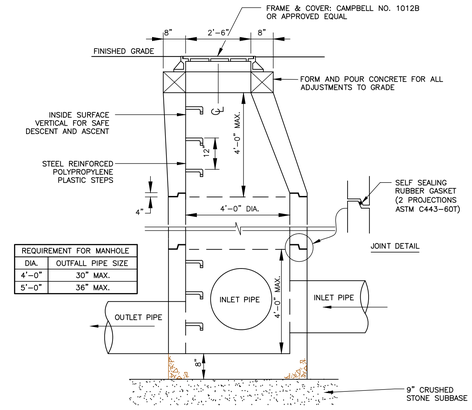
STANDARD PRECAST CONCRETE CATCH BASIN DETAIL
NOT TO SCALE



NOTES:

1. PRECAST CATCH BASIN, FRAME, AND GRATE SHALL BE DESIGNED FOR H-20 LOADING.
2. PRECAST CONCRETE TOP WITH FRAME AND GRATE MAY NOT BE USED.
3. LADDER RUNGS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS IN CONFORMANCE WITH ASTM C-478, 12" TO BOTTOM.
4. ALL PIPES SHALL BE LAID OR CUT FLUSH WITH THE INSIDE OF THE CATCHBASIN WALL AND SHALL BE FIRMLY PARGED IN PLACE, BOTH INSIDE AND OUTSIDE PRIOR TO BACKFILLING.
5. BACKFILL SHALL BE SELECT FILL COMPACTED IN 6 " LIFTS.

LARGE PRECAST CONCRETE CATCH BASIN DETAIL
NOT TO SCALE

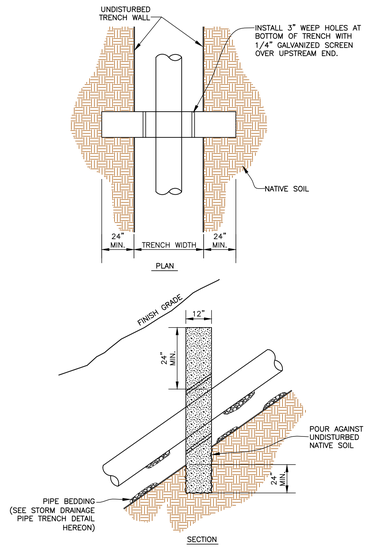


REQUIREMENT FOR MANHOLE	
DIA.	OUTFALL PIPE SIZE
4'-0"	30" MAX.
5'-0"	36" MAX.

NOTES:

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWING. FOR EACH MANHOLE FOR THE ENGINEERS APPROVAL PRIOR TO FABRICATION.
2. MANHOLE SHALL BE CERTIFIED AS CONFORMING TO ASTM C-478 LATEST REVISION.
3. PRECAST MANHOLE, FRAME AND GRATE SHALL BE DESIGNED FOR H-20 LOADING.
4. LADDER RUNGS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS IN CONFORMANCE WITH ASTM C-478, 12" TO BOTTOM.
5. ALL PIPES SHALL BE LAID OR CUT FLUSH WITH THE INSIDE OF THE MANHOLE WALL AND SHALL BE MORTARED IN PLACE.
6. BACKFILL SHALL BE SELECT FILL COMPACTED IN 6" LIFTS.
7. FOR STORMWATER MANHOLE, SINGLE OUTLET INVERT TO BE SET AT BOTTOM OF STRUCTURE.

DRAINAGE STORMWATER MANHOLE DETAIL
NOT TO SCALE

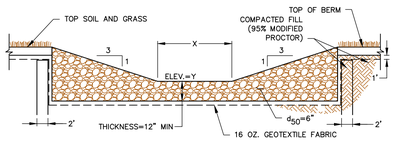


NOTES:

1. CONCRETE ANCHOR WALLS (COMMERCIAL GRADE CONCRETE) SHALL BE CONSTRUCTED USING FORMS WHEN STORM DRAINS ARE CONSTRUCTED WITH SLOPES 20% OR GREATER. REMOVE FORMS PRIOR TO BACKFILLING TRENCH.
2. SPACING OF ANCHOR WALLS SHALL BE:

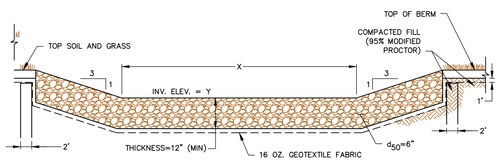
SLOPE	SPACING (ON SLOPE)
20–34%	35'
35–50%	25'
50+%	15' OR CONCRETE ENCASEMENT

CONCRETE PIPE ANCHOR DETAIL
NOT TO SCALE



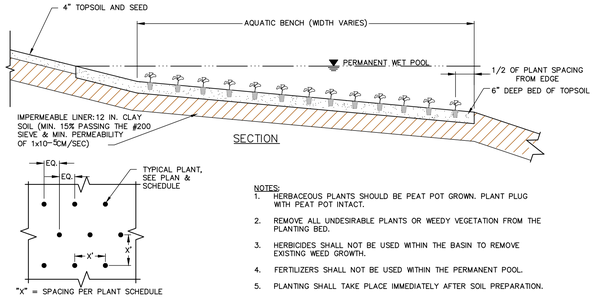
LOCATION	TOP OF BERM ELEV (FT)	X (FT)	Y (FT)
POND 1P	314.0	20	312.0
POND 2P	326.0	16	324.5
POND 3P	278.0	25	277.0
POND 4P	278.0	25	276.0
POND 5P	322.0	25	320.5

FOREBAY OVERFLOW WEIR
NOT TO SCALE



LOCATION	TOP OF BERM ELEV (FT)	X (FT)	Y (FT)
POND 1P	314.0	40	313.0
POND 2P	326.0	40	325.0
POND 3P	278.0	20	277.0
POND 4P	278.0	30	277.0
POND 5P	322.0	30	321.0

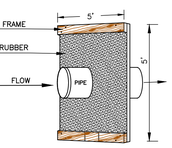
POND EMERGENCY SPILLWAY
NOT TO SCALE



NOTES:

1. HERBACEOUS PLANTS SHOULD BE PEAT POT GROWN. PLANT PLUG WITH PEAT POT INTACT.
2. REMOVE ALL UNDESIRABLE PLANTS OR WEEDY VEGETATION FROM THE PLANTING BED.
3. HERBICIDES SHALL NOT BE USED WITHIN THE BASIN TO REMOVE EXISTING WEED GROWTH.
4. FERTILIZERS SHALL NOT BE USED WITHIN THE PERMANENT POOL.
5. PLANTING SHALL TAKE PLACE IMMEDIATELY AFTER SOIL PREPARATION.

AQUATIC BENCH PLUG PLANTING
NOT TO SCALE



NOTES:

1. ANTI-SEEP COLLAR BY EXPANDED SUPPLY PRODUCTS, INC. OR EQUAL.
2. INSTALLATION SHALL BE PER MANUFACTURERS SPECIFICATIONS.

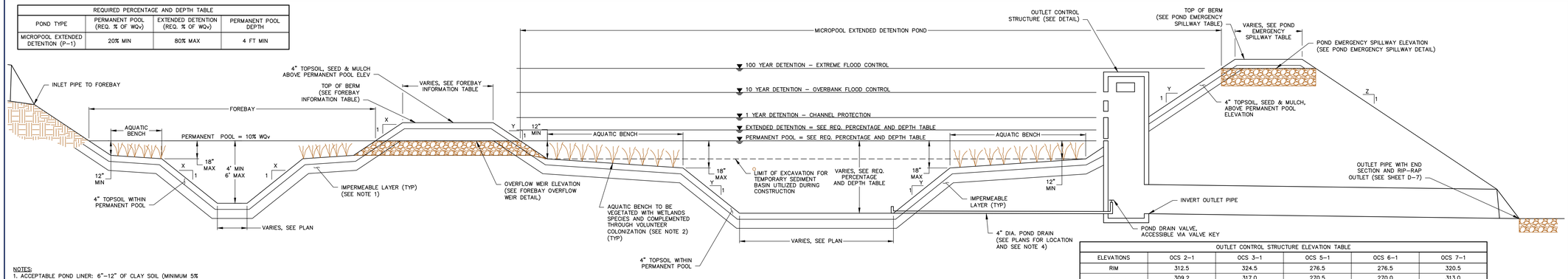
SPECIFICATIONS:

ANTI-SEEP COLLARS SHALL BE INSTALLED AROUND ALL CONDUITS THROUGH EARTH FILLS OF IMPOUNDMENT STRUCTURES ACCORDING TO THE FOLLOWING CRITERIA:

- COLLARS SHALL BE PLACED TO INCREASE THE SEEPAGE LENGTH ALONG THE CONDUIT BY A MINIMUM OF 15 PERCENT OF THE PIPE LENGTH LOCATED WITHIN THE SATURATION ZONE.
- COLLAR SPACING SHALL BE BETWEEN 5 AND 14 TIMES THE VERTICAL PROJECTION OF EACH COLLAR.
- ALL COLLARS SHALL BE PLACED WITHIN THE SATURATION ZONE.
- THE ASSUMED NORMAL SATURATION ZONE SHALL BE DETERMINED BY PROJECTING A LINE AT A SLOPE OF 4 HORIZONTAL TO 1 VERTICAL FROM THE POINT WHERE THE NORMAL WATER (RISER CREST) ELEVATION TOUCHES THE UPSTREAM SLOPE OF THE FILL TO A POINT WHERE THIS LINE INTERSECTS THE OF THE INVERT PIPE CONDUIT. ALL FILL LOCATED WITHIN THIS LINE MAY BE ASSUMED AS SATURATED.

ANTI-SEEP COLLAR
NOT TO SCALE

REQUIRED PERCENTAGE AND DEPTH TABLE			
POND TYPE	PERMANENT POOL (REQ. % OF WQv)	EXTENDED DETENTION (REQ. % OF WQv)	PERMANENT POOL DEPTH
MICROPOOL EXTENDED DETENTION (P-1)	20% MIN	80% MAX	4 FT MIN



NOTES:

1. ACCEPTABLE POND LINER: 6"–12" OF CLAY SOIL (MINIMUM 5% PASSING THE #200 SIEVE AND A MAXIMUM PERMEABILITY OF 0.00001 CM/SEC) OR APPROVED EQUAL BY THE ENGINEER.
2. SEE SHEET L-1 FOR POND PLANTING INFORMATION.
3. SEE OUTLET CONTROL STRUCTURE TABLE FOR ELEVATIONS AND SIZES OF INLET ORIFICES, INLET SLOTS, AND OUTLET PIPE. SEE OUTLET CONTROL STRUCTURE DETAILS ON SHEET D-6 FOR ADDITIONAL INFORMATION.
4. IF POND DRAINS ARE NOT SHOWN ON THE PLANS, THEN THE PONDS SHALL BE PUMPED OUT FOR ANY MAINTENANCE BELOW THE PERMANENT POOL ELEVATION.

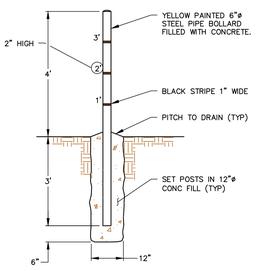
FOREBAY INFORMATION TABLE				
LOCATION	SLOPE (X)	TOP OF BERM (FT)	BERM WIDTH (FT)	AQUATIC BENCH WIDTH (FT)
POND 1P	3	314.0	8	8
POND 2P	3	326.0	8	6
POND 3P	3	278.0	8	8
POND 4P	4	278.0	8	8
POND 5P	3	322.0	8	8

POND INFORMATION TABLE		
LOCATION	SLOPE (Y)	AQUATIC BENCH WIDTH (FT)
POND 1P	4	10
POND 2P	3	NONE
POND 3P	3	8
POND 4P	4	10
POND 5P	3	8

POND EMERGENCY SPILLWAY TABLE			
LOCATION	TOP OF BERM (FT)	BERM WIDTH (FT)	SLOPE (Z)
POND 1P	314.0	8	3
POND 2P	326.0	8	3
POND 3P	278.0	8	2
POND 4P	278.0	8	3
POND 5P	322.0	8	3

OUTLET CONTROL STRUCTURE ELEVATION TABLE					
ELEVATIONS	OCS 2-1	OCS 3-1	OCS 5-1	OCS 6-1	OCS 7-1
RIM	312.5	324.5	276.5	276.5	320.5
INVERT IN	309.2 (2" ORIFICE)	317.0 (4" ORIFICE)	270.5 (2" ORIFICE)	270.0 (4" ORIFICE)	313.0 (2" ORIFICE)
INVERT IN	310.0 (2" ORIFICE)	--	271.2 (3" ORIFICE)	--	314.0 (3" ORIFICE)
INVERT IN (FRONT)	311.5 (18"Lx6"H SLOT)	321.65 (12"Lx6"H SLOT)	275.5 (34"Lx6"H SLOT)	274.0 (18"Lx6"H SLOT)	318.2 (34"Lx6"H SLOT)
INVERT IN (SIDES)	--	322.65 ((2) 12"Lx6"H SLOTS)	275.5 ((2) 26"Lx6"H SLOTS)	274.0 ((2) 24"Lx6"H SLOTS)	--
INVERT OUT	308.5 (18")	317.0 (24")	270.5 (24")	270.0 (24")	313.0 (24")
SUMP	2'	2'	2'	2'	2'

TYPICAL POND CROSS SECTION
NOT TO SCALE



FOREBAY SEDIMENT MARKER
NOT TO SCALE

REVISIONS

DATE:	DESCRIPTION:

POVALL ENGINEERING, PLLC

WILLIAM H. POVALL III, P.E.
N.Y.S.P.E. LICENSE #075020

25 CORPORATE PARK DR., SUITE C
HOPEWELL JUNCTION, NY 12533

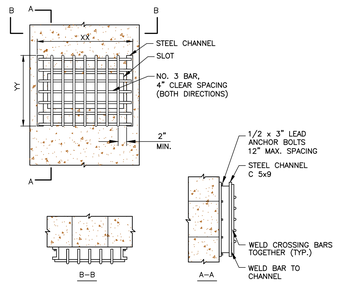
TEL.: (845) 897-8205
FAX: (845) 897-0042

HILLTOP VILLAGE AT WAPPINGER

STORMWATER DETAILS

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: AS SHOWN

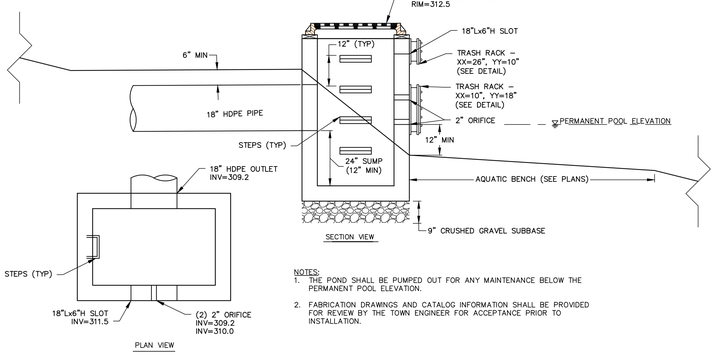


TYPICAL TRASH RACK DIMENSIONS TABLE		
ORIFICE/SLOT	XX (IN)	YY (IN)
2" ORIFICE	10	10
3" ORIFICE	11	11
4" ORIFICE	12	12
12"Lx6"H SLOT	20	14
18"Lx6"H SLOT	26	14
24"Lx6"H SLOT	32	14
26"Lx6"H SLOT	34	14
30"Lx6"H SLOT	38	14
34"Lx6"H SLOT	46	14

NOTE:
1. DIMENSION XX CAN BE ADJUSTED WHEN THE SEPARATION DISTANCE BETWEEN MULTIPLE ORIFICES PROHIBITS INDIVIDUAL TRASH RACKS OVER EACH ORIFICE OR WHEN SLOT(S) ARE CLOSE TO THE TOP OF THE OUTLET CONTROL STRUCTURE.

OUTLET STRUCTURE TRASH RACK DETAIL

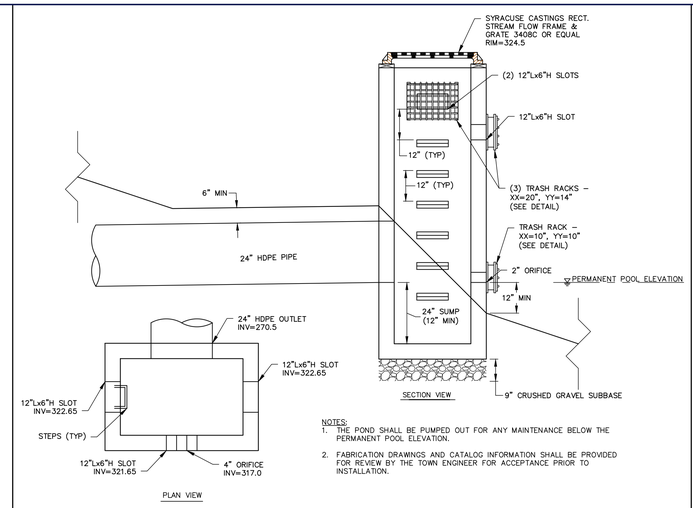
NOT TO SCALE



NOTES:
1. THE POND SHALL BE PUMPED OUT FOR ANY MAINTENANCE BELOW THE PERMANENT POOL ELEVATION.
2. FABRICATION DRAWINGS AND CATALOG INFORMATION SHALL BE PROVIDED FOR REVIEW BY THE TOWN ENGINEER FOR ACCEPTANCE PRIOR TO INSTALLATION.

OUTLET CONTROL STRUCTURE OCS 2–1 FOR POND 1P

NOT TO SCALE



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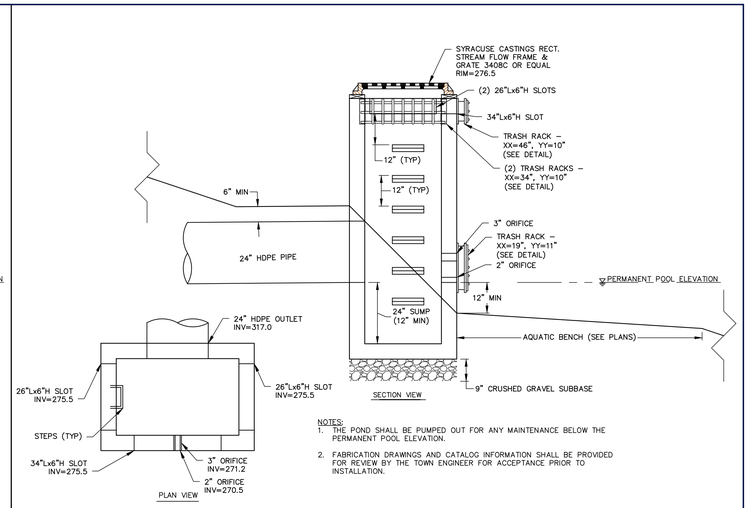
OUTLET CONTROL STRUCTURE OCS 3–1 FOR POND 2P

NOT TO SCALE



NOTES:
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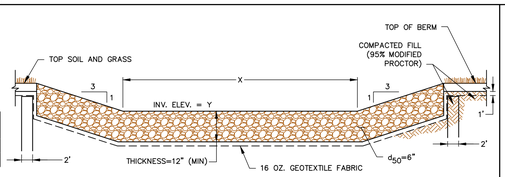
OUTLET CONTROL STRUCTURE OCS 5–1 FOR POND 3P

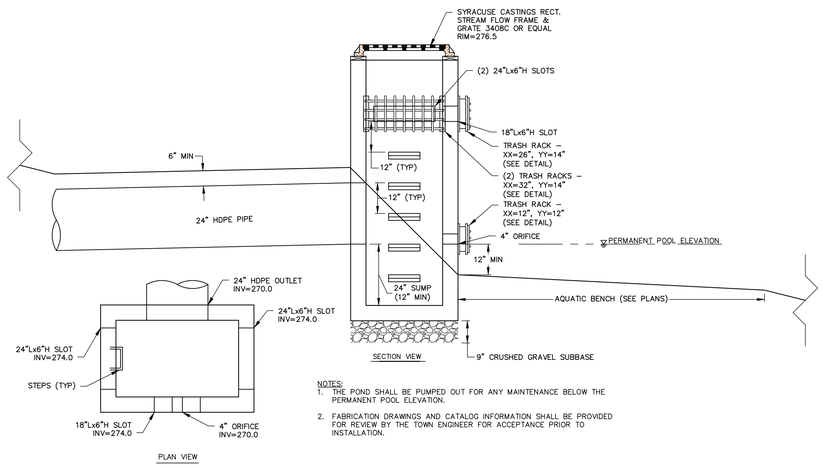
NOT TO SCALE

LOCATION	TOP OF BERM ELEV (FT)	X (FT)	Y (FT)
BIORETENTION AREA 1B	307.0	20	306.0
BIORETENTION AREA 2B	344.0	20	343.0



BIORETENTION AREA OVERFLOW WEIR

NOT TO SCALE



NOTES:
1. THE POND SHALL BE PUMPED OUT FOR ANY MAINTENANCE BELOW THE PERMANENT POOL ELEVATION.
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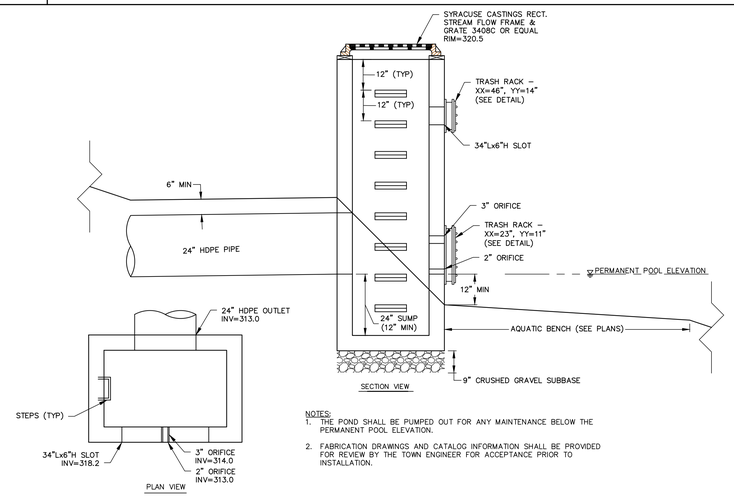
OUTLET CONTROL STRUCTURE OCS 6–1 FOR POND 4P

NOT TO SCALE



NOTES:
1. THE POND SHALL BE PUMPED OUT FOR ANY MAINTENANCE BELOW THE PERMANENT POOL ELEVATION.
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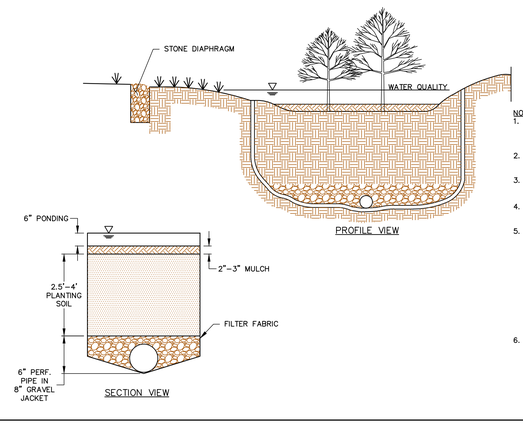
OUTLET CONTROL STRUCTURE OCS 7–1 FOR POND 5P

NOT TO SCALE

GENERAL SITE POST–CONSTRUCTION INSPECTION AND MAINTENANCE TABLE			
MAINTENANCE ITEM	FREQUENCY	DESCRIPTION OF INSPECTION PARAMETERS	DESCRIPTION OF REMEDY PROCEDURES
SITE STRUCTURES	ANNUAL & AFTER MAJOR STORMS	–ACCUMULATED SEDIMENT IN CATCH BASIN SUMPS –ACCUMULATED DEBRIS AND LITTER –DAMAGE OR FATIGUE OF STORM STRUCTURES OR ASSOC. COMPONENTS –ACCUMULATION OF POLLUTANTS, INCLUDING OILS OR GREASE, IN CATCH BASIN SUMPS	–REMOVE –REMOVE –REPAIR AND/OR REPLACE, AS NECESSARY –REMOVE POLLUTANTS FROM CATCH BASINS. REMOVE AND/OR REPAIR POLLUTANT SOURCE.
PAVEMENT	BIANNUAL/ANNUAL	–ACCUMULATED SEDIMENT IN PAVED AREAS –ACCUMULATED DEBRIS AND LITTER	–REMOVE (SWEEP MIN 2 TIMES/YEAR) –REMOVE
EMBANKMENTS	ANNUAL	–DIFFERENTIAL SETTLEMENT OF EMBANKMENTS –EMBANKMENT EROSION –ANIMAL BURROWS –CRACKING, BULGING, OR SLIDING OF EMBANKMENT	–STABILIZE AND RESTORE TO ORIGINAL SPECIFICATIONS –STABILIZE AND RESTORE TO ORIGINAL SPECIFICATIONS –REMOVE –STABILIZE AND RESTORE TO ORIGINAL SPECIFICATIONS
LAWN AND LANDSCAPED AREAS	ANNUAL	–VEGETATION: 80% COVERAGE + LESS THAN 15% INVASIVE PLANT SPECIES –UNAUTHORIZED PLANTINGS –UNDESIRABLE VEGETATIVE GROWTH –ACCUMULATED DEBRIS AND LITTER	–RESTORE TO ORIGINAL SPECIFICATIONS AS PER PLANTING PLAN –REMOVE –MOW A MIN. OF 3 TIMES A YEAR. MAY INCREASE FOR AESTHETIC REASONS. –REMOVE
WINTER MAINTENANCE	MONTHLY	–ACCUMULATION OF SNOW AND ICE ON CATCH BASINS, INLET AND OUTLET STRUCTURES, AND END SECTIONS –STOCK PILED SNOW NEAR INLETS AND OUTLETS –REMAINING DEICING MATERIALS	–REMOVE –REMOVE –REMOVE IN EARLY SPRING BY SWEEPING
SWALES	MONTHLY	–EROSION OF SIDE SLOPES –FORMATION OF RILLS OR GULLIES –UNDESIRABLE VEGETATIVE GROWTH –ACCUMULATED DEBRIS, LITTER, AND SEDIMENT –RESIDUAL DEICING MATERIALS (SAND)	–STABILIZE AND RESTORE TO ORIGINAL SPECIFICATIONS –REPAIR AND RESTORE TO ORIGINAL SPECIFICATIONS –REMOVE –REMOVE –REMOVE AND REPLACE ANY DAMAGED VEGETATION

STORMWATER POND POST–CONSTRUCTION INSPECTION AND MAINTENANCE TABLE			
MAINTENANCE ITEM	FREQUENCY	DESCRIPTION OF INSPECTION PARAMETERS	DESCRIPTION OF REMEDY PROCEDURES
POND EMBANKMENTS	ANNUAL	–VEGETATION: 80% COVERAGE + LESS THAN 15% INVASIVE PLANT SPECIES –EMBANKMENT EROSION –ANIMAL BURROWS –UNAUTHORIZED PLANTINGS –CRACKING, BULGING, OR SLIDING OF EMBANKMENT –FUNCTION OF POND DRAIN –SEEPS AND LEAKS OF DOWNSTREAM FACE –RIP–RAP FAILURE –VERTICAL ALIGNMENT OF TOP OF EMBANKMENT "AS BUILT" –SPILLWAY WEIR EROSION AND DEBRIS	–RESTORE TO ORIGINAL SPECIFICATIONS AS PER PLANTING PLAN –STABILIZE AND RESTORE TO ORIGINAL SPECIFICATIONS –REMOVE –REMOVE –STABILIZE AND RESTORE TO ORIGINAL SPECIFICATIONS –CLEAN AS NECESSARY –STABILIZE & REPAIR ANY BREACH –RESTORE RIP–RAP COVER AS NECESSARY –ADD/REMOVE MATERIAL AND STABILIZE TO ORIGINAL SPECIFICATIONS –CLEAN DEBRIS & ADD RIP–RAP AS NECESSARY
OUTLET STRUCTURES	ANNUAL & AFTER MAJOR STORMS	–TREES AND SHRUBS AROUND INLETS, OUTLETS, AND END SECTIONS –RIP–RAP FAILURE –ACCUMULATED DEBRIS AND SEDIMENT	–RESTORE TO ORIGINAL SPECIFICATIONS AS PER PLANTING PLAN –RESTORE RIP–RAP AS NECESSARY –REMOVE
PERMANENT POOL	MONTHLY	–UNDESIRABLE VEGETATIVE GROWTH –FLOATING OR FLOATABLE DEBRIS –VISIBLE POLLUTION –SHORELINE PROBLEM	–REMOVE –REMOVE –REMOVE –STABILIZE AND RESTORE TO ORIGINAL SPECIFICATION
SEDIMENT FOREBAY	MONTHLY	–ACCUMULATED SEDIMENT –ACCUMULATED DEBRIS AND TRASH	–REMOVE EVERY 5–6 YEARS OR WHEN 50% OF TOTAL FOREBAY CAPACITY IS LOST –REMOVE
OTHER POND AREAS	MONTHLY	–VEGETATION: 80% COVERAGE + LESS THAN 15% INVASIVE PLANT SPECIES –UNDESIRABLE VEGETATION GROWTH –UNDESIRABLE WOODY VEGETATION –STANDING WATER/WET SPOTS –SEDIMENT AND/OR TRASH ACCUMULATION	–RESTORE TO ORIGINAL SPECIFICATIONS AS PER PLANTING PLAN –REMOVE –REMOVE –ADD/REMOVE FILL AS NECESSARY TO RESTORE POND BASE ELEVATIONS –REMOVE
WETLAND PLANTINGS	MONTHLY	–SURVIVAL OF DESIRED WETLAND PLANTS –PLANTS: 80% COVERAGE + LESS THAN 15% INVASIVE PLANT SPECIES AFTER 2ND GROWING SEASON –DISTRIBUTION OF PLANTS AS PER LANDSCAPING PLAN –ANY EVIDENCE OF UNDESIRABLE INVASIVE SPECIES –MAINTENANCE OF ADEQUATE WATER DEPTHS PLANT SPECIES –CHOKING OF PLANTS DUE TO EXCESSIVE SEDIMENT DEPTHS –EUTROPHICATION LEVEL OF THE POND/WETLAND AREA	–RE–PLANT WETLAND SPECIES AS NECESSARY –RESTORE AS NECESSARY –RE–DISTRIBUTE AS NECESSARY –REMOVE –CLEAN OUTLETS TO RESTORE APPROPRIATE WATER LEVELS –REMOVE POND SEDIMENT AS NECESSARY –RESTORE EUTROPHICATION LEVEL AS NECESSARY
MISCELLANEOUS	MONTHLY	–ANY ENCROACHMENT INTO THE POND AREA –COMPLAINTS FROM RESIDENTS –POND AESTHETICS (GRAFFITI, LACK OF GRASS COVER, ETC.) –SIGNS OF HYDROCARBON BUILD–UP –ANY POSSIBLE PUBLIC HAZARDS	–REMOVE/REMEDY AS NEEDED –NOTE COMPLAINT AND DISCUSS WITH OWNER AND ENGINEER AS NECESSARY –REMOVE ANY GRAFFITI AND SCARIFY, SEED AND MULCH AS NECESSARY –REMOVE –NOTIFY TOWN AND DISCUSS WITH OWNER AND TOWN AS NECESSARY

BIORETENTION POST–CONSTRUCTION INSPECTION AND MAINTENANCE TABLE			
MAINTENANCE ITEM	FREQUENCY	DESCRIPTION OF INSPECTION PARAMETERS	DESCRIPTION OF REMEDY PROCEDURES
BIORETENTION AREAS	MONTLY	–EMBANKMENT EROSION –ACCUMULATED DEBRIS AND LITTER –DUMPED YARD WASTES –STANDING WATER	–STABILIZE AND RESTORE TO ORIGINAL SPECIFICATIONS –REMOVE –REMOVE –REMOVE AND REPLACE FILTER MEDIA MEETING ORIGINAL SPECIFICATIONS
FILTER BED	ANNUAL	–FILTER BED BLOCKED OR FILLED IN	–REMOVE AND REPLACE FILTER MEDIA MEETING ORIGINAL SPECIFICATIONS
OUTLET STRUCTURES	ANNUAL & AFTER MAJOR STORMS	–CATCH BASIN AND ASSOCIATED COMPONENTS IN POOR CONDITION –EMBANKMENT EROSION –ACCUMULATED DEBRIS AND SEDIMENT –RIP–RAP FAILURE	–REPAIR AND/OR REPLACE –STABILIZE AND RESTORE TO ORIGINAL SPECIFICATIONS –REMOVE –RESTORE RIP–RAP AS NECESSARY
VEGETATION	MONTHLY	–VEGETATION: 80% COVERAGE + LESS THAN 15% INVASIVE PLANT SPECIES –UNDESIRABLE VEGETATION GROWTH –UNAUTHORIZED PLANTINGS	–RESTORE TO ORIGINAL SPECIFICATIONS AS PER PLANTING PLAN –REMOVE –REMOVE



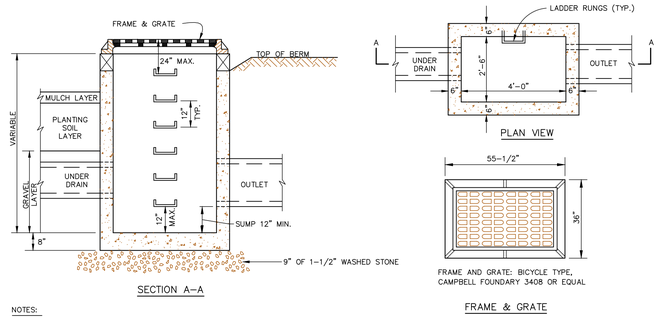
NOTES:
1. PLANTING SOIL TO BE A SANDY LOAM, LOAMY SAND, LOAM (USDA), OR A LOAM/SAND MIX (MIN. 35 TO 65% SAND BY VOLUME).
2. PLANTING SOIL TO HAVE A PERMEABILITY OF AT LEAST 1.0 FOOT PER DAY.
3. PLANTING SOIL TO BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER.
4. PLACEMENT OF PLANTING SOILS TO BE IN 12 TO 18" LIFTS, LOOSELY COMPACTED.
5. SPECIFIC SPECIFICATIONS

PARAMETER	VALUE
pH RANGE	5.2 TO 7.0
ORGANIC MATTER	1.5 TO 4.0%
MAGNESIUM	35 LBS/AC (MIN.)
PHOSPHOROUS	75 LBS/AC (MIN.)
POTASSIUM	85 LBS/AC (MIN.)
SOLUBLE SALTS	500 PPM
CLAY	10 TO 25%
SILT	30 TO 35%
SAND	35 TO 60%

6. MULCH LAYER TO BE STANDARD LANDSCAPE STYLE, SINGLE OR DOUBLE, SHREDDED HARDWOOD MULCH OR CHIPS. THE MULCH LAYER SHOULD BE WELL AGED (STOCKPILED OR STORED FOR AT LEAST 12 MONTHS), UNIFORM IN COLOR, AND FREE OF WEEDS, ROOTS, SOIL, ETC. GRASS CLIPPINGS SHALL NOT BE USED AS MULCH MATERIAL.

BIORETENTION TYPICAL CROSS SECTION

NOT TO SCALE



NOTES:
1. PRECAST CONCRETE TOP WITH FRAME AND GRATE MAY NOT BE USED.
2. LADDER RUNGS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS IN CONFORMANCE WITH ASTM C–478, 12 INCH TO BOTTOM.
3. ALL PIPES SHALL BE LAID OR CUT FLUSH WITH THE INSIDE OF THE CATCH BASIN WALL AND SHALL BE FIRMLY PARGED IN PLACE, BOTH INSIDE AND OUTSIDE
4. SEE OVERFLOW STRUCTURE ELEVATION TABLE FOR UNDERDRAIN INLET ELEVATIONS AND PIPE OUTLET ELEVATIONS.

OVERFLOW STRUCTURE ELEVATION TABLE		
ELEVATIONS	OCS 1–1 (1B)	OCS 4–1 (2B)
RIM	305.5	342.5
INVERT IN (UNDER DRAIN)	––	337.17 (6")
INVERT OUT	304.3 (24")	336.17 (18")

OUTLET CONTROL STRUCTURE FOR BIORETENTION AREAS 1B & 2B

NOT TO SCALE

REVISIONS	
DATE:	DESCRIPTION:

POVALL ENGINEERING, PLLC

WILLIAM H. POVALL III, P.E.
N.Y.S.P.E. LICENSE #075020

25 CORPORATE PARK DR., SUITE C
HOPEWELL JUNCTION, NY 12533

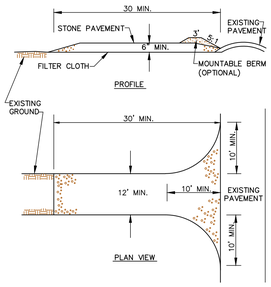
TEL.: (845) 897-8205
FAX: (845) 897-0042

HILLTOP VILLAGE AT WAPPINGER

STORMWATER DETAILS

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

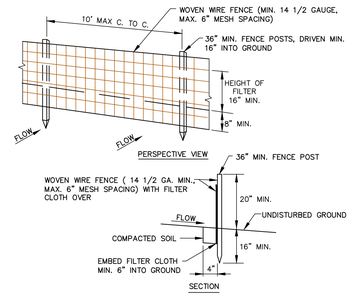
JOB #: 0552
DATE: 09/30/11
SCALE: AS SHOWN



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAINFALL EVENT.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

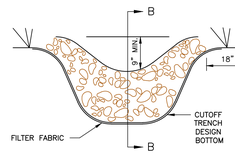
POSTS: STEEL EITHER "T" OR "U" TYPE OR 2" HARDWOOD

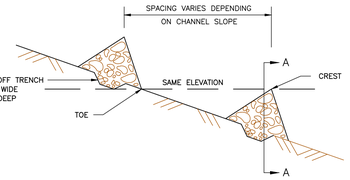
FENCE: WOVEN WIRE, 14 1/2 GA. 6" MAX. MESH OPENING

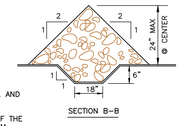
FILTER CLOTH: FILTER X, MIRAFI 100X STABILINKA T140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE
NOT TO SCALE



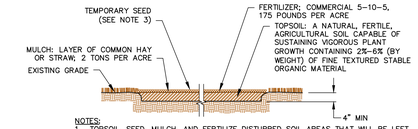




CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES, AND LOCATIONS SHOWN ON THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

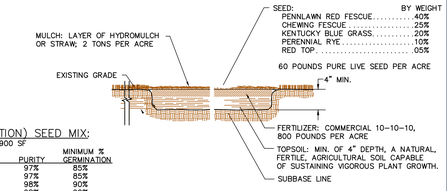
STONE CHECK DAM
NOT TO SCALE



NOTES:
1. TOPSOIL, SEED, MULCH, AND FERTILIZE DISTURBED SOIL AREAS THAT WILL BE LEFT EXPOSED FOR 7 DAYS OR MORE.
2. SOIL pH SHALL BE TESTED, LIME SHALL BE APPLIED AS REQUIRED TO BRING SOIL pH TO 6.5.
3. SEED MIX: APPLY AT A RATE OF 3 TO 4 LBS PER 1000 SF

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	PURITY	MINIMUM % GERMINATION
90%	ANNUAL RYEGRASS	98%	90%
10%	ORGANIC MATTER	98%	90%
100%			

TEMPORARY VEGETATIVE COVER



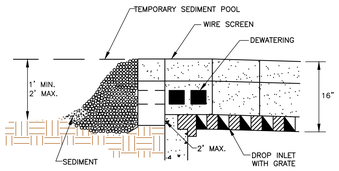
PERMANENT VEGETATIVE COVER

EROSION CONTROL (CONSERVATION) SEED MIX:

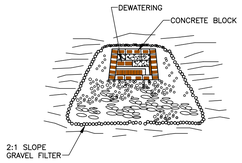
SEED MIX: APPLY AT A RATE OF 1 LB PER 900 SF

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	PURITY	MINIMUM % GERMINATION
40%	CREEPING RED FESCUE	97%	85%
30%	TALL FESCUE	97%	85%
20%	PERENNIAL RYEGRASS	98%	90%
10%	BIRDSFOOT TREFOIL	98%	90%
100%			

VEGETATIVE COVER SPECIFICATIONS
NOT TO SCALE

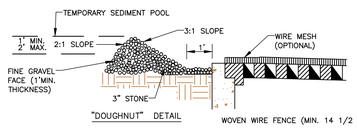


STONE & BLOCK DETAIL



CONSTRUCTION SPECIFICATIONS

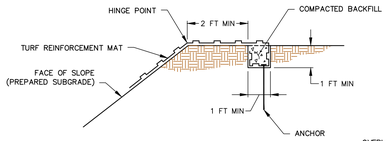
1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON IT'S SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2 – 3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW THE TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.



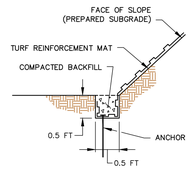
"DOUGHNUT" DETAIL

WOVEN WIRE FENCE (MIN. 14 1/2 GAUGE, MAX 6" MESH

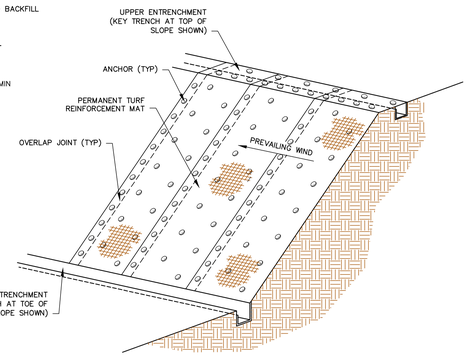
STONE & BLOCK DROP INLET
NOT TO SCALE



KEY TRENCH AT TOP OF SLOPE



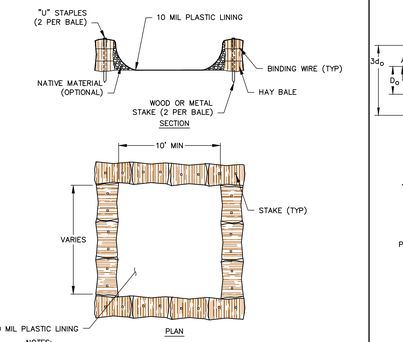
KEY TRENCH AT TOE OF SLOPE



PERMANENT TURF REINFORCEMENT MAT ON SLOPE

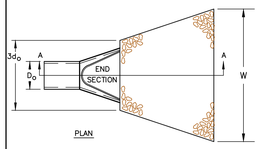
NOTES:
1. INSTALL ON ALL SLOPES 3:1 OR STEEPER.
2. INSTALL AND ANCHOR PER MANUFACTURER'S RECOMMENDATIONS.
3. TURF REINFORCEMENT MAT SHALL BE LANDLOKE 450 OR APPROVED EQUAL.

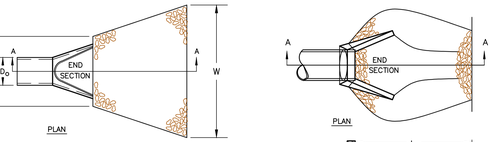
EROSION CONTROL BANK STABILIZATION
NOT TO SCALE



NOTES:
1. CONCRETE WASHOUT SIGN TO BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
2. REMOVE HARDEN CONCRETE WHEN WITHIN 4" FROM TOP OF STRUCTURE.
3. CONSTRUCT NEW FACILITIES ONCE CURRENT FACILITIES ARE TWO–THIRDS FULL.
4. LINERS, HAYBALES, ET.C SHALL BE INSPECTED FOR DAMAGE. ANY DAMAGE SHALL BE REPAIR PROMPTLY.

ABOVE GROUND TEMPORARY CONCRETE WASHOUT FACILITY
NOT TO SCALE

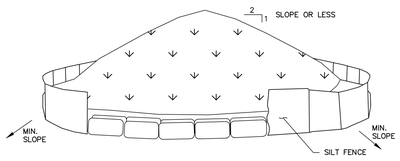




TYPICAL DIMENSIONS		
Do (IN)	d50 (IN)	Bt (IN)
18	6	9
24	6	9
30	9	14
36	9	20
42	9	20
48	9	20
60	12	27

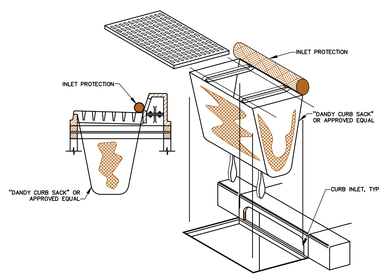
NOTES
1. La IS THE LENGTH OF THE RIPRAP APRON. La = 4.5 x 'Do' MIN.
2. W IS THE WITH OF THE RIP–RAP APRON. W = 4.0 x 'Do'
3. 'Do' IS THE PIPE DIAMETER

RIP–RAP OUTLET
NOT TO SCALE



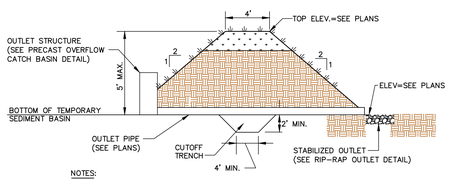
NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.
5. HAYBALES TO BE USED WHERE STOCKPILES ARE LOCATED ON PAVED AREAS.

TEMPORARY SOIL STOCKPILE
NOT TO SCALE



NOTES:
1. CATCH BASINS LOCATED WITHIN PAVEMENT SHALL USE THIS INLET PROTECTION.
2. DEVICES TO BE EMPTIED/ CLEANED AS NEEDED.
3. INLET PROTECTION TO REMAIN IN PLACE UNTIL SITE IS COMPLETELY STABILIZED.

CATCH BASIN GRATE INLET FILTER
NOT TO SCALE



NOTES:

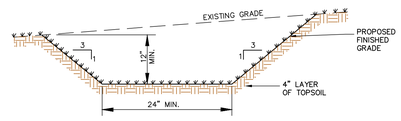
ONCE SITE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, THE TEMPORARY SEDIMENT BASINS /TRAPS SHALL BE CLEANED AND EXCAVATED FOR THE INSTALLATION OF THE BIORETENTION AREAS AND STORMWATER PONDS.

VOLUME = (DRAINAGE AREA) X (3,600 CF/Ac.)

SURFACE AREA (SF) = VOLUME (CF) / 0.4 (DEPTH)

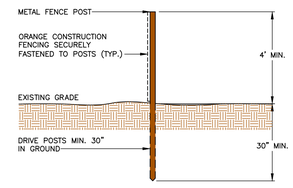
SEDIMENT BASIN LOCATION	DRAINAGE AREA (Ac.)	VOLUME (CF)	DEPTH (FT.)	SURFACE AREA (Ac.)
1P	6.091	21,928	5	4,386
2P	15.344	55,238	5	11,048
3P	12.596	45,346	5	9,069
4P	14.053	50,591	5	10,118
5P	12.383	44,579	5	8,916
1B	5.267	18,961	5	3,792
2B	5.791	20,848	5	4,170

SEDIMENT BASIN
NOT TO SCALE

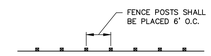


NOTES:
1. PROVIDE TURF REINFORCEMENT MATTING TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. TURF MATTING SHALL BE TENSAR EROSION MAT OR APPROVED EQUAL.
2. SWALE SHALL BE SEEDED AND MULCHED WITH FAS GERMINATING RYE 15 LBS TO 25 LBS PER 1,000 SQUARE FEET.

GRASSED SWALE
NOT TO SCALE



SECTIONAL ELEVATION



PLAN

ORANGE CONSTRUCTION FENCE
NOT TO SCALE

REVISIONS

DATE:	DESCRIPTION:

POVALL ENGINEERING, PLLC

WILLIAM H. POVALL III, P.E.
N.Y.S.P.E. LICENSE #075020

25 CORPORATE PARK DR., SUITE C
HOPEWELL JUNCTION, NY 12533

TEL.: (845) 897-8205
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HILLTOP VILLAGE AT WAPPINGER

EROSION & SEDIMENT CONTROL DETAILS

TOWN OF WAPPINGER — DUTCHESS COUNTY, NEW YORK

JOB #: 0552
DATE: 09/30/11
SCALE: AS SHOWN
D-7
SHEET 29 OF 29